

HARVARD MEDICAL

ALUMNI BULLETIN

FALL 1988



PASSAGES

*In Boston
and Beijing*

ROYAL VIKING & HARTFORD HOLIDAYS

presents

Spectacular & Exclusive Savings **for** **Harvard Medical Alumni**

Book your Royal Viking cruise with Hartford Holidays and enjoy famous Royal Viking luxury and service at **exclusive** savings. Visit wondrous ports-of-call all around the world. Most cruise holidays even include fabulous extras like **free or reduced airfares** and 2 or 3 night pre or post-cruise **complimentary deluxe hotel packages**. Royal Viking has been awarded the coveted 5 STAR rating from the *Berlitz Complete Handbook to Cruising*. Make this your year to experience the Royal Viking standards of uncompromising quality with exclusive Harvard Medical Alumni savings available only with Hartford Holidays.

Book any one of more than 80 fabulous Royal Viking cruises in 1989 by October 31, 1988 and save from **\$500 - \$1,500** per couple. Below is just a small sampling of these exclusive savings. Ask about other departures and destinations.

1989	Date(s)	# of days	from/to	# of ports	regular per person rates from	book by 10/31 and save from regular rates shown
PACIFIC/ORIENT	Mar 19	20	Sydney/Hong Kong	7	\$5,415	\$750
CANADA/NEW ENGLAND	Aug 26 or Sept 23	14	N Y/N Y	8	3,815	250
AMAZON	Apr 5 Apr 17	12 12	Ft Lauderdale/Manaus Manaus/Ft Lauderdale	6 6	3,165 3,165	250 250
NORTHERN EUROPE	July 1 July 20 July 26 Aug 2	13 13 13 13	London/Copenhagen Copenhagen/Copenhagen Copenhagen/Copenhagen Copenhagen/London	5 5 5 4	3,955 4,180 3,955 4,180	250 250 250 250
CONNOISSEUR'S EUROPE	May 29 June 19 Aug 21	13 12 14	Lisbon/Copenhagen Naples/London London/Nice	6 6 7	3,390 2,885 3,570	250 500 500
MEDITERRANEAN	May 3 May 8 Sept 4 Sept 29	13 12 12 13	Lisbon/Venice Lisbon/Istanbul Nice/Istanbul Istanbul/Rome	5 5 7 7	3,475 3,070 3,175 3,290	250 250 250 250
BRITISH ISLES	Aug 8	13	Copenhagen/London	6	3,775	500
ALASKA	July 4 Aug 6	11 11	San Francisco/Vancouver Vancouver/Vancouver	7 4	2,890 2,890	250 250
CHINA	May 6 Sept 24 Oct 5	11 11 11	Hong Kong/Beijing Hong Kong/Beijing Beijing/Hong Kong	6 6 6	3,910 3,910 3,910	250 250 250
SOUTH SEAS	Jan 5	24	Los Angeles/Sydney	7	6,085	750
TRANSCANAL	Mar 4 Dec 18	15 17	Ft Lauderdale/San Francisco Ft Lauderdale/San Francisco	7 6	3,610 4,365	500 500
SOUTH PACIFIC	Feb 11 Mar 7	12 12	Auckland/Sydney Auckland/Sydney	4 4	3,740 3,740	500 500
JEWELS OF THE ORIENT	Nov 13 Nov 25	12 12	Hong Kong/Bangkok Bangkok/Hong Kong	4 4	3,760 3,760	500 500

All savings are per person

We will make a \$100 contribution to Harvard Medical Alumni.

If you book any Royal Viking cruise thru Hartford Holidays, we will make a \$100 contribution in your name to Harvard Medical Alumni or any bona fide organization of your choice.



**HARTFORD
HOLIDAYS**

Call Richard Helberg today: 800-645-2120 or New York State residents, call collect 516-466-0335 or return the coupon for a free brochure:

Yes, I am interested in saving on my next Royal Viking cruise. Please send me more information.

Name

Address

City

State Zip

Hartford Holidays
277 Northern Blvd
Box 462
Great Neck, NY 11022

Telephone#

Destination

Approximate Departure Date

HMA

HARVARD MEDICAL

ALUMNI BULLETIN / FALL 1988 / VOL. 62 NO. 2

FEATURES

- 12 **The China Connection**
- 12 **PUMC Restored to Eminence** *by Daniel R. Kuritzkes*
- 19 **Bedside in Beijing** *by Eddie Chen*
- 25 **Class Day**
- 27 **Ethical Imperatives and the Patient with AIDS** *by C. Everett Koop*
- 30 **How I Lost My Belly-Button** *by Jeff Ecker*
- 32 **The Unwitting Subjects** *by J. Randall Forbes*
- 34 **Alumni Day**
- 35 **Do Not Resuscitate, I'm Only a Doctor** *by Harvey Klein*
- 37 **Announcement of the 1988 Nobel Prize for Economics in Medicine**
by Paul J. Davis
- 39 **Relative Value the Harvard Way** *by Richard F. Brubaker*
- 41 **Merging Science with Politics** *by Deborah Prothrow-Stith*
- 42 **HMS Women's Dinner** *by Ellen Barlow*
- 44 **The Rise and Fall of Physician Autonomy** *by Harold J. Burstein*

DEPARTMENTS

- 3 **Alumni Council: President's Report** *by Doris R. Bennett*
- 4 **Letters**
- 5 **Pulse: AIDS Institute, new HMS department, MGH mummy on exhibition**
- 7 **Campaign Report: Campaign Capsules**
- 8 **Bench Marks: Managing Molecules** *by Ellen Barlow*
- 9 **Commentary: The Black Achiever** *by Preston R. Black*
- 49 **Reunion Reports**
- 56 **Alumni Notes**
- 62 **In Memoriam: Robert S. Morison and Thomas P. Hackett**
- 64 **Death Notices**

Cover: HMS Dean Daniel Tosteson and U.S. Surgeon General C. Everett Koop lead the Class Day procession. Photo by Ulrike Welsch.

INSIDE H.M.A.B.

Like the annual passage of our planet through meteor showers, once more Alumni Day and Class Day produced their stars. This year the students chose the surgeon general to be their guest. His discourse on the ethical imperatives of AIDS flashed across the afternoon skies.

But first, two members of the graduating class—Randy Forbes and Jeff Ecker—described how things were under the Old Pathway. The following day Klein, Davis and Brubaker (to be old fashioned and use only surnames) did credit to the wit and wisdom of the 25th-year class.

They were followed by Harold Burstein, a third-year student, who read his prize essay on what medicine must do if it is to preserve its professional autonomy, emphasizing the personal side of medicine. His theme was echoed by Eddie Chen, who had spent the summer before his second year on a fellowship in a large children's hospital in Beijing. He was troubled there by a lack of personal concern for the patient. To fill in the China picture further, we have an excellent history of the intimate association of HMS—from Francis Peabody to Tosteson and Federman—with Peking Union Medical College, which has arisen from the ashes.

The lively concern of alumni for minority affairs is clear in Doris Bennett's first presidential letter. Doris, Class of '49, was the first woman to graduate from HMS, first because of alphabetical priority. Preston Black '75 offers a thoughtful commentary on the relative lack of minority faculty. There are further comments by Deborah Prothrow-Stith '79, presently commissioner of public health in Massachusetts.

News of the school features a profile by Ellen Barlow of that phenomenon of Building C, Chris Walsh, with his new era of biological chemistry and molecular pharmacology combined into one department.

Cliff Barger '43A, after years of devoted service, earns *emeritus* status from our editorial board, and we thank him. Michael Myers '85 joins us. He has just finished a primary care residency at Mt. Auburn and is setting up private practice in Dorchester. He has played a key role in organizing a minority HMS alumni group.

So with another Alumni Day issue ends our annual report to you the alumni.

—Gordon Scannell

HARVARD MEDICAL ALUMNI BULLETIN

Editor

J. Gordon Scannell '40

Managing Editor

Ellen Barlow

Assistant Editor

Debra J. Trione

Editorial Assistant

Sarah Jane Nelson

Editorial Board

David Altshuler '90

Harold Amos, Ph.D.

Rafael Campo '91

Robert M. Goldwyn '56

Timothy E. Guiney '66

Emily Koumans '89

Robert S. Lawrence '64

Michael T. Myers Jr. '85

Guillermo C. Sanchez '49

Eleanor Shore '55

Richard J. Wolfe

Design Direction

Office of the University Publisher

Association Officers

Doris R. Bennett '49, president

Claire M. Stiles '56, president-elect 1

Robert M. Goldwyn '56, president-elect 2

Herschel D. Collins '52, vice-president

Roger L. Christian '66, secretary

Barbara J. McNeil '66, treasurer

Councillors

George S. Bascom '52

Preston R. Black '75

Cecil H. Coggins '58

Paul J. Davis '63

Allan L. Freidlich '43A

Bernadine P. Healy '70

Joseph K. Hurd '64

Paula A. Johnson '85

Deborah B. Prothrow-Stith '79

Representative to the

Harvard Alumni Association

William D. Cochran '52

Director of Alumni Relations

William V. McDermott '42

Chairman of the Alumni Fund

Joseph E. Murray '43B

The *Harvard Medical Alumni Bulletin* is published quarterly at 25 Shattuck Street, Boston, MA 02115 ©by the Harvard Medical School Alumni Association. Telephone: (617) 732-1548. Third class postage paid at Boston, Massachusetts. Postmaster, send form 3579 to 25 Shattuck Street, Boston, MA 02115. ISSN 0191-7757.

ALUMNI COUNCIL: PRESIDENT'S REPORT

Opening Minutes

by Doris R. Bennett

Thanks to the groundwork laid by my able predecessor, Jim Pittman, the Alumni Council is looking forward to an exciting and challenging year. With Bill McDermott as executive director of the alumni office, and Nora Necessian as our new associate executive director, we hope to expand the scope of the Alumni Council's activities in the ensuing months.

Bill, a highly esteemed surgeon, former chief of the Harvard surgical service at Boston City Hospital, and Cheever Professor of Surgery, *Emeritus* at HMS, needs no introduction to HMS alumni. We are also very fortunate to have Nora Necessian join us. She has a doctorate in the history of art and comes to us from the department of fine arts at Harvard, where she was an assistant professor in the field of medieval art. Nora brings a new dimension of sophistication to the alumni office, which has already, in the six months she has been here, benefited from her imagination, energy and capacity for hard work. In addition, Dan Federman's wisdom, experience and keen sense of humor continue to keep us all from straying too far off the well-traveled path of the generations of alumni who have preceded us.

During this past academic year the Alumni Council has embarked upon several exploratory ventures. In response to a request from the Black Health Organization (BHO) at HMS, we helped sponsor a two-day meeting of minority students and alumni, during which a seminar on minority health issues was held. The topics raised—low birth weight in infants, substance abuse, homicide, suicide and AIDS—were timely and were related to the urban minority community.

As a consequence of this meeting, several of the minority alumni decided to explore the idea of organizing a minority HMS alumni group. This proposal was presented by Michael Myers Jr. '85 and Bernard Godley, PhD '89 to the Alumni Council at our June meet-

ing. There seemed to be a consensus that this group should be constituted as a sub-group of the Alumni Association—not as a separate organization. A committee was appointed, consisting of Roger Christian '66, Cecil Coggins '58 and Joseph Hurd '64, to continue meeting with the leaders to establish a structured, mutually supportive relationship.

Another "minority"—HMS alumnae—held a dinner during alumni week in the faculty room of Building A. Women students at HMS were invited guests. The audience, which was far larger than we had expected, heard four speakers discuss the difficulties facing women doctors who wish to succeed in the academic world. Concomitantly, we learned about Harvard's attempts to ameliorate these difficulties. We hope to repeat this dinner next year, perhaps with a program to emphasize other definitions of success in life and medicine.

Another activity of the Alumni Council has been maintenance and expansion of its networking program, which provides students and new HMS graduates with names of alumni throughout the country whom they can contact when traveling for interviews.

A recurring topic discussed at Alumni Council meetings during the past year has been the role of the HMS Alumni Association in U.S. medicine's current political and socioeconomic ferment. The point was raised by members of the council that HMS alumni constitute one of the largest medical alumni groups in the country—7,500 members. It was also suggested that a large number—probably a significant majority—occupy positions of influence and leadership in both the medical profession and the community at large.

Should this influential leadership be directed by the Alumni Association to speak out on public policy? If the answer is yes, then in which direction should it be guided, and what steps should be taken? These difficult questions are being dealt with by an Alumni Council subcommittee, chaired by Ber-

nadine Healy '70, who will prepare a charge for our alumni survey committee.

The council would appreciate the guidance of alumni on these questions. Please write or call any of the alumni councillors listed on page 2, or if in Boston, drop by the alumni office on the second floor of Building A and express your opinions in person to Bill McDermott or Nora Necessian. We all hope to be readily accessible to benefit from your thoughts, opinions and suggestions. ☐

Doris R. Bennett '49, president of the Harvard Medical Alumni Council, is a pediatrician with the Harvard Community Health Plan.

MOVING?

Please fill out this form and send to:

Harvard Medical Alumni Bulletin
25 Shattuck St.
Boston, MA 02115

Name/class

Telephone

Old address: (or attach mailing label)

New address:

Social Responsibility Response

After reading "On the Fringe of Society" by Jim O'Connell and "Mixed Company" by David Stasior in your Spring *Bulletin*, I was eager to send you a congratulatory letter in praise of their stories.

The generous work done by these two young men, giving up the precious commodity of time in the midst of exciting and demanding careers to help those alone and neglected, is admirable. They put aside for a while sure and immediate compensation for their hard training to care for the forlorn and forsaken. It is heartening to see such compassion for a group of people who sometimes may not seem to appreciate efforts made for them and, as is the case particularly with the mentally ill, often can't understand the help offered or how to receive it.

I am reminded of my father (Dr. Fredrick C. Irving) and his interest in starting the "externship" program for his third-year obstetrical students when he taught in the 1930s and '40s. The students learned the experience of the Boston district and needy sections of the city. They did deliveries on their own, relying on a back-up referral to a resident at Boston Lying-In Hospital if any real difficulty arose. I am reminded also of my father's admiration and love for his patients in the charity ward of the hospital.

These young doctors will not be losing time in their careers or practices. Their lives will be enriched.

"Ye do for the least of My brethren, ye do it also unto Me."

—*Fraunces I. Hascall*

It is my opinion that the Spring 1988 issue of the *Bulletin* was the greatest issue of any alumni bulletin of HMS or any other institution in all my experience. Of special interest to me was the

great article about Physicians for Human Rights. If there is any way in which I could participate in the activities of that group, I would like to also.

—*Theodore B. Massell '31*

Anecdotal Dose

I was pleased but not surprised to read the moving explanation by my classmate Max Eddy '35 (he entered the Class of '33 with his friend Barney Crile and I) of his reason for quitting his successful surgical practice in 1969 and moving to Ethiopia, where he served for two years as the only surgeon in a 160-bed hospital at the Public Health College. His generous, considerate qualities were revealed to me in our HMS second year. One of our fellow students had sprained his ankle badly and was in considerable pain. In the midst of our pharmacology course, the question arose of what medication to prescribe and the proper dosage. Our floor of Vanderbilt Hall, known as the "abscess," housed some of the ablest students of our class, so the appropriate therapy was discussed with considerable vehemence and difference of opinion. In the midst of the turmoil, Max Eddy led the "patient" aside, gave him two aspirin tablets and put him to bed. All was well the next morning.

—*Bradford Cannon '33*

Look Again

Articles on the practice of medicine in National Socialist Germany, and on its perversion in concentration camps, have become frequent in the American press since the publication of Lifton's *The Nazi Doctors*. Like Dr. Trepman's recent contribution to your pages, most such articles, while emotionally deeply felt, are essentially anecdotal. They may tend to confirm us in the erroneous

impression that it is not possible to extrapolate useful lessons from the phenomena of Hitler's Germany, because what went on there was so horrible that we, as readers, can find no parallels in our society.

An alternative to such articles is available. There is an extensive literature on how German institutions—the church, the courts, the universities, the professions—and individuals were systematically warped by National Socialism. An excellent introduction and overview is provided by *Die Faschisierung des bürgerlichen Subjekts: Die Ideologie der gesunden Normalität und die Ausrottungspolitik im deutschen Faschismus. Materialanalysen* (Wolfgang Fritz Haug, Argument-Verlag, Berlin and Hamburg; ISBN 3-88619-080-3, DM 18.50; 1986). I recommend it to those interested in the relationship between medicine and the state.

I believe that the greatest threat to the likelihood that American physicians will put their patients first is posed not by ideology, but by conflicts of financial interest. As economic considerations and governmental controls on funding become increasingly more important in the practice of medicine, we may all find ourselves reshaping our actions and our consciences to avoid conflict with one or another "invisible hand." Control of access to dialysis services in Britain and the obsession with guarding against malpractice liability in the United States provide examples of such reshaping. If it is worthwhile attempting to understand why physicians serve the ends of a totalitarian state, or of any state, including our own, and how present-day practitioners may avoid complicity with the state against their patients, nonanecdotal, fundamental analyses such as Haug's should be consulted.

—*A.S. Knisely '81*

AIDS Institute

Harvard University President Derek Bok launched a major assault against AIDS when he announced in May the establishment of a university-wide institute to accelerate and encourage AIDS research at Harvard. The new institute represents an intra-Harvard partnership among the medical school, its affiliated hospitals and institutions, Harvard School of Public Health (HSPH), and other graduate and professional schools at the university.

"The institute's mission is to focus our resources and redouble our efforts," says Bok, who chairs the policy board that governs the institute. While medical researchers and clinicians work to develop a vaccine and improve diagnostic techniques and treatments, legal experts are tracking national and international AIDS legislation. An inter-faculty working group on AIDS policy and epidemiology has already produced useful analyses of complex AIDS issues, and other faculty are collaborating with African, Latin American, Asian and European countries to help contain the epidemic abroad.

"For AIDS to be conquered, the behavior of both the organism responsible for the disease and the humans subject to its destruction must be understood and influenced," says Harvey Fineberg, dean of HSPH, also on the governing committee. "The institute will encourage collaboration across disciplines, sparking new, creative approaches to the disease."

The institute currently has five centers, each supporting and developing key areas of investigation: biologic research, clinical research and care, biometry and epidemiology, policy and education, and international cooperation. Administrative offices of the institute are now located at HSPH, and the university plans to build new facilities to house core research activity.

Myron E. Essex, chairman of the


institute, is also chairman of the department of cancer biology at HSPH and a pioneering AIDS researcher. He leads the institute committee, which oversees institute planning and operations. The committee also includes a number of other investigators, many of whom have already made outstanding contributions to AIDS research: Jerome E. Groopman, chief of hematology and oncology at New England Deaconess Hospital and associate professor at HMS; William A. Haseltine, head of the laboratory of biochemical pharmacology at Dana-Farber Cancer Institute and associate professor at HSPH; Howard H. Hiatt, professor of medicine at HMS and HSPH; Martin S. Hirsch, director of the virology research laboratory at Massachusetts General Hospital and associate professor at

HMS; Stephen W. Lagakos, professor of biostatistics at HSPH; Bernard N. Fields, Adele Lehman Professor and chairman of the department of microbiology and molecular genetics at HMS; Fred S. Rosen, James L. Gamble Professor of Pediatrics at HMS and president of the Center for Blood Research; and Lincoln C. Chen, Taro Takami Professor of International Health at HSPH. □

McNeil Heads New Department

A separate HMS department of health care policy has been created to address the enormous recent changes in the managerial, technical and financial aspects of medical care. The new department was formed through reorganiza-

**YOUR TURN!
CALL FOR ENTRIES**



At last the Dodo said, "*Everybody* has won, and *all* must have prizes."

The *Harvard Medical Alumni Bulletin* is sponsoring an alumni photo contest, for the fun of it. Everybody will win. Three entrants will even win a prize.

<p>Theme: "people and places"</p> <p>Format: black and white print, up to and including 8 x 10 inches</p> <p>Number: limited to one entry</p>	<p>Deadline: January 1, 1989</p> <p>Prizes: We're working on it!</p> <p>Restrictions: limited to HMS alumni who are amateur photographers</p>
--	--

We reserve the right to publish the winning photographs. We will handle entries with the utmost care, but cannot assume responsibility for damage or loss. If you would like your photo returned, please enclose a self-addressed stamped envelope.

tion of the department of preventive medicine and clinical epidemiology and of the department of social medicine and health policy.

Barbara McNeil, professor of radiology and clinical epidemiology at HMS and director of the Center for Cost-effective Care at Brigham and Women's Hospital, will chair the new department. In addition to her work at BWH on the delivery side of health care, her appointment with ProPAC (Prospective Payment Assessment Commission)—an independent, congressionally-established panel of experts on health care delivery, financing and research—has put her on the regulatory side as well.



Barbara McNeil

The research agenda for the new department will focus on four areas: health care management (including approaches to cost containment and quality of care); health policy; technology assessment; and health services research (including analysis of socioeconomic factors that may influence utilization of health services). Several assessment studies directed by McNeil are already underway.

"Research in health services and policy has shifted from primarily retrospective to prospective work," says McNeil, "making it necessary to have close links with a hospital or clinical site where care is delivered. In addition, the scope of the research has broadened, increasing the need for scholars trained in non-medical disciplines such as biostatistics, sociology, economics and management. The new department should give us the best setting to bring together a multidisciplinary group of faculty with linkages to clinical facilities." □



Mouse turns celebrity. When the U.S. Patent and Trademark Office awarded the first ever animal patent to Harvard for a mouse genetically-engineered to get cancer, cartoonists had a field day. Philip Leder '60, chairman of the HMS genetics department, developed the transgenic mouse model to study cancer formation.

Well Preserved

After 165 years in Massachusetts General Hospital's Ether Dome, Padihershef, a humble stone cutter from Thebes, took a summer 'vacation' at the Museum of Science. Encased in a bubble intended to transport nuclear accident victims, the 2,500 year-old mummy traveled to the museum in March for its Ramesses the Great Exhibition.

The mummy was a gift to the city of Boston from Dutch merchant Jacob Van Lennep in 1823. It was turned over to MGH to raise funds for the then two-year-old hospital. After un-

dergoing a complete medical examination by MGH co-founder John C. Warren, Padi traveled around the East Coast on exhibition for a year, raising \$1,500, substantial funds in those days.

X-rays taken by Edward D. Churchill in 1931 and Jack Dreyfuss in 1976 were part of the museum exhibition. Collectively, these X-rays reveal that Padi, who died at age 40, suffered from scoliosis and degenerative disease in his hip and knee joints. Growth arrest lines in Padi's legs indicate that he also had severe illnesses as a youth. Padi was the only mummy at the Ramesses exhibition, which featured over 70 priceless treasures from the reign of the Egyptian pharaoh. □



CAMPAIGN REPORT

Campaign Capsules

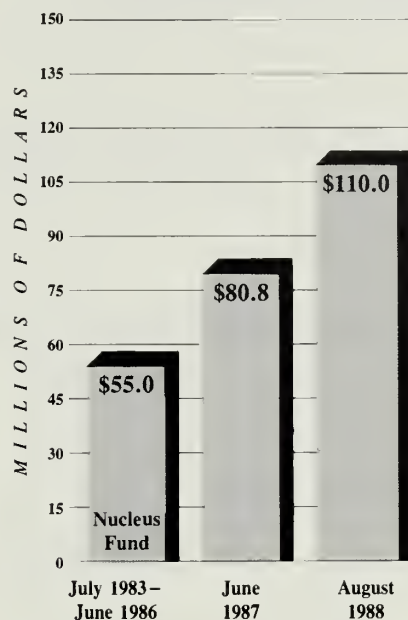
More than 400 alumni and their families helped launch the Boston regional campaign in April, celebrated with a reception in the new Medical Education Center. Co-chairs of the Boston committee are Arthur Kravitz '54, John Brooks '43B, Lewis Kane '39 and Curtis Prout '41. Loren MacKinney '45 flew in from California to provide some inspiration. He is chairman of the Los Angeles regional campaign committee, which had already begun a successful effort. "I want to thank the dean and others at Harvard Medical School for allowing mere mortals like myself and maybe some of the rest of you in this room who are mere mortals—I don't see any,

but I'm sure there must be some—to have an opportunity to include our names on what is really, as far as physicians in this country are concerned, hallowed ground." MacKinney added, "And these are gifts that are within the reach of almost all alumni."

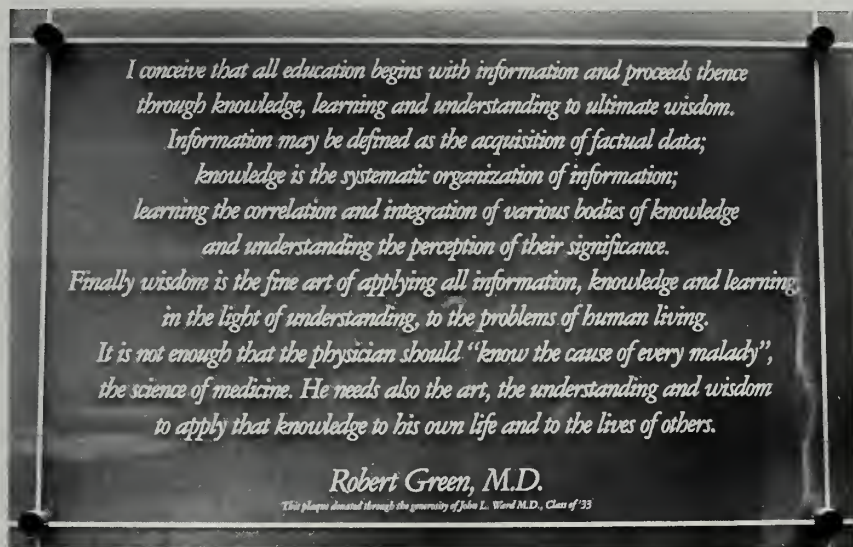
• HMS students did the dialing for an alumni fundraising phonathon last spring. Twenty-six classes were called by 22 student-callers; a total of \$135,000 had been received by mid-July, though pledged donations were still coming in. The annual fund office reports a 19.3 percent increase in donors over last year in those classes that were called.

• A tutorial room in the Medical Education Center (MEC) will commemorate Alfred O. Ludwig '30. Ludwig, a

Campaign for the Third Century of Harvard Medicine



The Campaign reached \$110.0 million in gifts and commitments as of August, 1988. The Campaign goal is \$185 million.



John Ward '33 funded this plaque, which now hangs in the Medical Education Center in honor of Robert Montraville Green. Green, a professor of anatomy, is remembered fondly as an outstanding teacher by generations of HMS students.

psychiatrist at MGH and assistant clinical professor of psychiatry at HMS, died December 21, 1986. Funding for the room—to be named the Dr. Alfred O. Ludwig Memorial Room—was provided by his friends, family and former patients. It is the first MEC tutorial room to be named.

• The son and daughter-in-law of John J. Kneisel '38 helped him celebrate his 50th reunion at HMS last spring with a \$50,000 gift in his honor to the Walter B. Cannon Endowment Fund. Anne and William J. Kneisel (Harvard Business School '74) commented that they wanted to support one of the institutions that had contributed to making John Kneisel an "unusually caring" individual.

• When Dorothy Errera, a former RN in the Surgical Research Laboratory at the old Peter Bent Brigham Hospital, received a cash windfall from her stocks as a result of a stock takeover, she turned to her friend Carl Walter '32 for advice. As a result she designated an annuity gift to the Arthur Tracy Cabot Fellowship, a natural idea since she had worked with many previous Cabot fellows in the Surgical Research Laboratory. □

BENCH MARKS

Managing Molecules

by Ellen Barlow

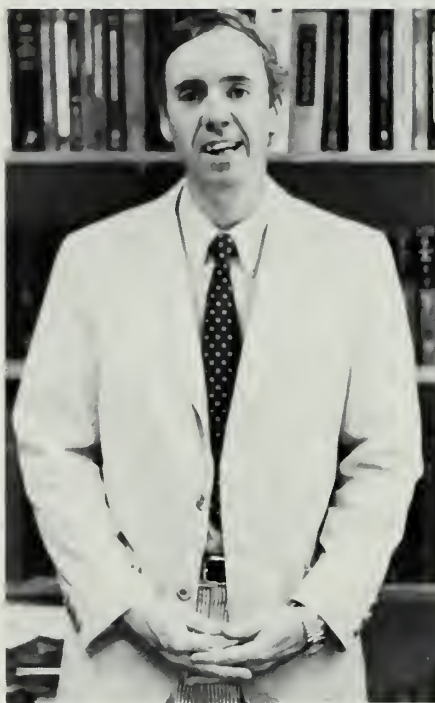
Christopher T. Walsh has an enviable ability to juggle four handfuls of priorities without seeming to sweat. In 1987 he left a prestigious position as chairman of MIT's chemistry department to mate two HMS departments into a super hybrid. His challenge is nothing less than to create a department capable of generating a new paradigm for the upcoming century.

The merger of the biological chemistry and pharmacology departments into the department of biological chemistry and molecular pharmacology took place for several reasons. "The major rationale is intellectually driven by the pace of new discovery in experimental medicine," explains Walsh, who is also the HMS David Wesley Gaiser Professor. "There is a clear intellectual continuum from fundamental discoveries in biological chemistry through their transition to the therapeutic approaches that are the essence of pharmacology."

Human insulin, growth hormone, interferon, interleukin and t-PA (tissue plasminogen activator) are examples of proteins or other macromolecules that have become important therapeutic drugs. To contribute to the development of such therapy, says Walsh, one has to have a basic knowledge of molecular structure/function relationships. A department that merges knowledge about the utility of drugs with expertise in gene cloning, selective gene activation, and protein structure/function analysis could lead to other discoveries.

The combination of these two departments "is not an inevitable one, but for this institution I think it's a promising one," he says. Only the University of California/San Francisco has expertise that is equivalent to what Walsh plans to centralize at HMS. "There is little debate that this approach is one of the futures of molecular medicine. Successful implementation is the issue, particularly getting the right people."

Walsh's schedule the past year has been "incredibly hectic," yet he remains



calm, almost laid back, as he explains his plans. Plans he has outlined many times to Harvard's various constituencies: faculty, department heads, alumni, donors. He has developed the department's teaching program, advised on design and renovation of the bottom three floors of Building C, the department's eventual home, and reached out to other departments at HMS and the affiliated hospitals to "get a feel for the intellectual topography." Let's just say he has had little time for sleep.

"People have been very helpful," he says. "If the idea has any merit, then they see its virtue."

Biological chemistry and molecular pharmacology is now one of seven basic science departments at HMS; the others are anatomy, genetics, microbiology and molecular genetics, molecular and cellular physiology, neurobiology and pathology.

A key knowledge base in experimental medicine that Walsh says has

been virtually absent at HMS and the hospital-based laboratories is that of structural biology. "Yet no modern biochemistry or pharmacology department can be considered major league without the expertise to define the structure of biological macromolecules in three dimensions."

Structural biology enables investigators to characterize genetic defects at a molecular level, in a way not previously possible; to study the hormone receptor of a specific target cell, or of other receptors such as the T cell's T4, the point of entry for the AIDS virus. Proteins of important biological or genetic function can be isolated, he says, "but to determine how their function is constrained and determined by their structure, high-resolution NMR and X-ray crystallography are the only real methods up to the task."

Walsh plans to build a core of structural biology expertise, in part by looking outward to ties with other preclinical departments and hospital-based research groups. He and John Potts, HMS Jackson Professor and chief of the MGH department of medicine, have jointly appointed Michael Weiss '85, who will continue his frontier research using high-resolution NMR. The facilities and space to do powerful NMR research have not existed at HMS; "We will create the space and jointly acquire the instrument with MGH to set up the facility here."

Weiss has been using this sophisticated NMR technology to study insulin and insulin receptor function. The NMR allows correlation of nuclear signals from distinct regions of the insulin molecule; with enough signals, one can triangulate coordinates for various pieces of the molecule and arrive at a three-dimensional reconstruction of its shape. He will also study specific sites on mutant insulin and correlate the effect of mutation on functional recognition by the receptor.

"This is a first step," says Walsh. "The insulin system is a particularly good place to start given its central role in endocrinology. This kind of study has not been done on any other body system before."

Walsh would like this collaborative effort to be a prototype for a microenvironment in which people can do creative science with medical relevance. He has also been working with Baruj Benacerraf, HMS George Fabian Professor and president of Dana-Farber Cancer Institute, to jointly recruit an expert in X-ray crystallography, another critical method for determining structure of proteins and nucleic acids. Walsh

has opened discussions with many other investigators on collaborative possibilities.

He has also been juggling his own research priorities. He brought his whole research group of 15 post-docs and pre-docs from MIT, joined by 5 others. His group is studying enzymes and proteins with catalytic activity to understand how they bring about specific chemical changes. Approaches he has taken range from cloning genes that control production of encoded enzymes, purification, and crystallization for X-ray analysis.

"A major focus is on enzymes that may be therapeutic targets or involved in some toxification or detoxification response of an organism," he adds. "In particular we use a knowledge of the intimate details of a specific enzyme reaction to design mechanism-based inhibitors, also called suicide substrates, and achieve selective inactivation of the enzyme."

In one study they are analyzing the mode of action of anti-bacterial agents on enzymes found in the cell walls of bacteria but not in those of higher organisms. If they can find an agent that specifically inhibits those enzymes, they will have a selective anti-bacterial that is harmless to all other non-bacterial cells.

Specificity of action is the name of the game in this molecular era of biology. In another project, Walsh's team is working on anti-parasitic drugs against trypanosomes, the parasite that causes sleeping sickness. They have found a novel enzyme that protects the parasite against oxygen radical damage. They purified the protein, cloned and sequenced the gene, and discovered that this parasite enzyme is a cousin to one found in the human red cell. But the parasite enzyme shows a distinct specificity, which Walsh hopes to take advantage of in designing parasite-specific inhibitors. If they can inactivate this parasite enzyme, then perhaps the natural host defenses will be enough to ward off attack.

In addition to many other research efforts, Walsh says he has also broadened his horizons in experimental medicine since arriving at HMS. "We're beginning a project to study how certain proteins involved in blood coagulation are matured to ready them for secretion by liver into the blood." The maturation involves vitamin K in a "poorly understood carboxylation process" and they "will use combined chemistry and biology expertise to unravel the process in normal cells and in cases where proteins are defective or the mat-

uration process is defective."

Walsh adds that he and his research group have found the change of environment invigorating. He had been on the MIT faculty for 15 years in both the chemistry and biology departments, the last 5 years as chairman of the chemistry. He also has consulted for the pharmaceutical industry on new drug design. His AB degree is in biology from Harvard University and PhD is in life sciences from the Rockefeller University in New York.

"When Dean Tosteson came calling I was not looking for work," he says. "But I was seduced by the prospect that one could create something first class and novel by building on the great strength and talent already here."

Walsh sincerely believes they can create a prototypic department for the next century. The new infrastructure is in place, momentum created. He has found infinite possibilities. "But talk is cheap. Now we have to see what we can do." □

COMMENTARY

The Black Achiever

by Preston R. Black

Even the educated colored: the long-school people, the doctors, the teachers, the paper-writers and businessmen had a hard row to hoe. In addition to having to use their heads to get ahead, they had the weight of the whole race sitting there. You need two heads for that. Whitepeople believed that whatever the manners, under every dark skin was a jungle. The more coloredpeople spent their strength trying to convince them how gentle they were, how clever and loving, how human, the more they used themselves up to persuade whites of something Negroes believed could not be questioned, the deeper and more tangled the jungle grew inside.

—Toni Morrison, *Beloved* (1987)

The American Dream is predicated on the principle that an individual's success in life is commensurate with his or her ability. As Thomas Jefferson so eloquently stated, all Americans are entitled to "life, liberty and the pursuit of happiness." These tenets have not always been applied equally to all citizens of this country, especially not to minority groups. Affirmative action, developed and enacted during the civil rights movement, was a policy designed to make the American Dream available to that segment of society to which easy access previously had been denied.

Harvard Medical School made an early commitment to affirmative action, and since 1971 nine percent of the students admitted to HMS have been black.

Despite this effort in attracting black students, HMS has been less successful in recruiting and retaining black faculty. In fact, less than one percent of the HMS faculty is black. Why are there so few black faculty at HMS?

Recall that many of the young blacks who benefited from affirmative action came from poor backgrounds. In their efforts to achieve the American Dream, they often left their homes and were cast into an environment with which they were totally unfamiliar and for which they were often socially unprepared. Consequently, tremendous psychological adjustments had to be made. To many, the simplest way to adjust was to adopt the characteristics of the



majority culture into which they suddenly had been thrust.

As these young blacks made themselves over to become more acceptable in their new environment, many lost touch with the community from which they had emerged. The reasons for this disenfranchisement were myriad. Education broadens one's horizons, diversifies one's interests and opens new vistas. Frequently, the communities from which these young black achievers had arisen could not provide for their blossoming intellectual interests. In addition, their neighborhoods frequently did not provide an arena in which these young scholars could use their newly learned skills or provide the jobs that could further their career goals. Moreover, some of these young blacks faced hostility upon returning to their communities because success in the predominantly white professions was viewed as a cop-out by their peers. Ultimately, they had to choose one or the other of these two worlds.

However, merely making these choices did not alleviate many of the problems with which these young black professionals had to come to grips. Their professional environment also presented unique problems. As Clarence Thomas, chairman of the U.S. Equal Employment Opportunity Commission has said, "There is nothing you can do to get past black skin. I do not care how educated you are, how good you are at what you do—you will never have the same contacts and opportunities, you will never be seen as equal to whites."

Injudicious remarks by colleagues or patients and real or perceived discrimination at the time of promotion brings this realization to the doorstep of all black professionals at some time in their careers. Consequently, the black professional no longer feels comfortable in his adopted social setting.

Furthermore, because he may have severed ties with the community in which he was nurtured, the black professional all too often must contend with feelings of abandonment and isolation. There seems to be no one to turn to. Those people in his community who would be supportive may not have a clear concept of the intricacies of his professional life. Sympathetic colleagues who would like to help often do not fully appreciate the special problems their black associates must face daily.

The black achiever becomes what W.E.B. DuBois characterized as "two warring souls, one black, one white." Those institutions that would attract and retain competent blacks should be

aware of these issues and should take steps to provide not only a healthy work environment, but should also be aware of and address these important social issues.

The success of HMS in attracting medical students is due in part to the presence of black organizations on campus. When black applicants visit the school, there are students with whom they can relate directly and who can give them the "low down" on being a black medical student at Harvard. This black community at HMS, if you will, provides a comfortable social structure in which to learn and function. The black HMS student has sympathetic and, more important, empathetic listeners to the problems he faces as he receives his medical education.

*The black achiever becomes
what W.E.B. DuBois
characterized as two
warring souls, one black,
one white.*

During the third year of medical school another adjustment must be made. Not only are the minority students faced with coming to grips with the difficult transition into clinical medicine, they must also begin to make important career decisions. This transition is complicated by the low number of black residents and clinical faculty members available to counsel these students at this critical time.

Furthermore, the fact that there are only a small number of minority faculty and no black faculty members in some subspecialties deprives black medical students of proper role models and denies them contact with advisors who have had similar experiences or who can discuss residency programs from an appropriate and relevant point of view. In other words, the feeling of community and the comfortable social structure that are so prevalent during the preclinical years are abruptly dissolved.

The end result is that many of the Harvard-educated, black resident candidates seek training in programs where

they feel their particular needs will be met. Because of the isolation experienced during the clinical years, this usually means that most of these students feel they must leave Harvard to accomplish this. Thus, a vicious cycle is established and maintained.

Black faculty members at Harvard have needs similar to those of minority medical students. They too need colleagues with life experiences comparable to their own and to which they can relate. The pressures of academic performance are high for all faculty members, but they become particularly acute when these pressures are accentuated by feelings of isolation and misunderstanding. Minority faculty members need organizations and others at their level in sufficient number to discuss issues and share experiences. They need peers who can give them the "low down" on being a black *faculty* member at Harvard.

Some might argue that placing minority faculty and students in special categories will lead to the isolation of these groups from other members of the Harvard community. That would be true if black organizations for faculty members and students were to be maintained separate from academic life at Harvard as a whole. I am not proposing such a drastic step. I see such organizations as an integral part of the Harvard community, designed to meet special needs of a particular segment of that community. The minority members of such groups should take care not to form organizations that are insular from the medical community, but which are an extension to it. These organizations should not only help their members, but should also be encouraged to make the needs of minorities at HMS better known and better understood.

Enriching the academic life of all its members is an important goal of HMS. Highly visible minority faculty members at all levels of the medical school, in all subspecialties who take an interest in the function of the entire medical school would not only encourage application to HMS by the best minority students and most qualified minority faculty candidates, but would enhance the Harvard medical community as a whole. □

Preston R. Black '75 is assistant professor of surgery and chief of the division of pediatric surgery at the Stritch School of Medicine, Loyola University, Chicago. He has served two years on the Harvard Medical Alumni Council.

Alumni Fellowships Available
Applications Invited for 1989-90

THE WILLIAM O. MOSELEY JR. TRAVELLING FELLOWSHIP

The bequest of Julia M. Moseley makes available fellowship funds for graduates of Harvard Medical School for postgraduate study in Europe. The amounts awarded for stipend and expenses are determined by the specific needs of the individual.

The Committee on Fellowships gives preference to those Harvard Medical School graduates who:

1. Have already demonstrated their ability to make original contributions to knowledge.
2. Have planned a program of study which in the Committee's opinion will contribute significantly to their development as teachers and scholars.
3. Clearly plan to devote themselves to careers in academic medicine and the medical sciences.

Individuals who have already attained faculty rank at Harvard or elsewhere are not ordinarily eligible. There is no specific due date for the receipt of applications or for the beginning date of awards. The Committee requests that applications be submitted not more than one year in advance of the requested beginning date. The Committee will meet once a year in January to review all applications on file by December 31. Applicants will be notified by January 31.

Additional monies are available to provide a second research fellowship that would not require overseas travel. Interested alumni are urged to apply by December 31, 1988, for the academic year 1989-90.

Information and application forms may be obtained from:

Committee on Alumni Fellowships
Harvard Medical School
Room 414, Building A
25 Shattuck Street, Boston, MA 02115



THE CHINA CONNECTION

PUMC Restored to Eminence

In the heart of Beijing, less than a mile from the ancient Forbidden City and Tiananmen Square, the gracefully arched green-tiled roofs of Peking Union Medical College rise above the dusty lanes. Built in the style of traditional Chinese palaces, these buildings were erected nearly 70 years ago by the Rockefeller Foundation to house its ambitious foray into medical education in China.

Last September Peking Union Medical College (PUMC) celebrated its 70th anniversary with the graduation of the first class of medical students to enroll since the end of the Chinese Cultural Revolution. The convocation celebrating this event took place during my three months there as visiting lecturer in microbiology under the auspices of the newly established Harvard Medical School-PUMC exchange program.

Although my visit marked the first time since the school reopened in 1979 that a foreigner had taught an entire course as part of the "core" curricu-

by Daniel R. Kuritzkes

lum, many students and faculty from HMS and its affiliated hospitals have visited PUMC since China reopened its doors to the West in 1972. In fact, as I later learned, the faculty of HMS has been deeply involved with PUMC since its inception. The story of PUMC has been told many times, but as HMS renews its ties with its Chinese alter-ego, it is appropriate to review the contributions made by Harvard to this remarkable institution.

In 1914 the newly chartered Rockefeller Foundation focused its attention on the medical needs of China, "the sick man of Asia." A conference was called to consider ways in which the foundation might best direct its efforts there. Among those present was Charles

Eliot, president *emeritus* of Harvard University and a member of the Rockefeller Foundation's board of trustees. Also present were the Flexner brothers: Simon Flexner, microbiologist and director of the Rockefeller Institute, and Abraham Flexner, whose revolutionary report on medical education in the United States had appeared four years earlier.

The outcome of the meeting was the adoption of a plan to establish in China a modern medical school and hospital operated by the foundation. First, existing medical facilities had to be surveyed. For this the Rockefeller Foundation drafted Francis W. Peabody, physician at the Peter Bent Brigham Hospital and professor of medicine at HMS; Harry Pratt Judson, president of the University of Chicago (another Rockefeller project); and Roger S. Greene, American Consul-General in Hankow (Wuhan), constituting the first China Medical Commission.

Several foreign medical schools were

already in operation throughout China, primarily under the auspices of various Christian missions. Some of these schools had loose affiliations with American universities, such as Yale-in-China Medical School in Changsha. Harvard had allowed a group of alumni to use its name in establishing the Harvard Medical School of China in Shanghai, which had no other connection to its Boston namesake.

The China Medical Commission spent four months touring Chinese and missionary medical schools and found their standards lacking. As a result of their conclusions, the Rockefeller Foundation established the China Medical Board, of which Peabody became a charter member, to oversee the foundation's work in China.

Pursuing the recommendations of the China Medical Commission, the board acquired the Union Medical College in Peking, a missionary school operated jointly by several American and British missionary societies, and renamed it Peking Union Medical College. A second China Medical Commission was dispatched, which included Simon Flexner and William Welch, the first dean of Johns Hopkins Medical School and adviser to the Rockefeller Institute. Their conclusion—that the board should “aim to create as good a medical college as [could] be found anywhere in Europe or America . . .”—became the guiding principle for the board's administration of PUMC.

Against the background of reform in American medical education, catalyzed by the report of Abraham Flexner, it is not surprising that the “Johns Hopkins model”—which integrated medical education with scientific research and clinical treatment—was adopted for Peking Union Medical College as well. The China Medical Board acquired the property of Prince Yu adjacent to the old Union Medical College. The beauty of Prince Yu's palace inspired Charles A. Coolidge, the architect who had planned and built the quadrangle buildings at HMS, to incorporate classical Chinese styles in his preliminary study for the PUMC buildings.

Franklin C. McLean, an assistant resident physician at the hospital of the Rockefeller Institute, served as first director of PUMC. Before assuming his duties in Peking, he spent a year at

HMS engaged in scientific research while simultaneously gathering an academic and administrative staff for the new school. Despite the political and economic upheavals of the First World War, buildings, students and faculty were gradually assembled and PUMC was officially dedicated by John D. Rockefeller Jr. in September 1921.

Peabody traveled again to Peking for the dedication ceremonies and stayed on as visiting professor of medicine for the 1921/22 academic year. On his return to Boston, Peabody assumed directorship of the newly organized Thorndike Memorial Laboratories. An account of his PUMC experiences was published in *Science* in 1922.

The next two decades saw the steady growth of PUMC. The school was soon recognized as the premier medical institution in Asia and attracted distinguished visiting faculty from around the world. Many of its graduates assumed positions of leadership at other medical schools in China. The Rockefeller Foundation provided fellowships for PUMC graduates to travel to the United States for additional clinical or research training.

A good number came to Harvard. In fact, it is fair to say that during this period there was a constant stream of students and faculty traveling back and forth between PUMC and HMS. PUMC could count among its visiting faculty some of Harvard's most distinguished representatives. The pharmacologist Reid Hunt served as visiting professor of pharmacology in 1923; William T. Councilman, chairman of pathology, as visiting professor of pathology for 1923/24; HMS Dean David L. Edsall was visiting professor of medicine during the 1926/27 academic year.

E.G. Brackett, chief of orthopedics at Massachusetts General Hospital, came to PUMC as visiting professor in 1922. The renowned physiologist Walter B. Cannon, George Higginson Professor of Physiology at HMS, was visiting professor of physiology in 1935. Cannon lived with his daughter Wilma who was doing editorial work at PUMC while her husband, John Fairbank, Harvard's noted China scholar, was studying Chinese.

Chester S. Keefer served as visiting professor of medicine from 1928 to 1930, before returning to Harvard and



PUMC trustees, including Francis W. Peabody (front row, far left).

the Thorndike labs. The pediatrician Charles F. McKhann, who had trained several PUMC alumni in his laboratory at Children's Hospital, went to Peking as visiting professor of pediatrics for 1934/35. And Hans Zinsser, an expert on typhus and HMS chairman of bacteriology and immunology, came as visiting professor of bacteriology in 1938.

Several HMS alumni began their careers at PUMC. Perhaps the most distinguished of these was Wu Hsien, who received his PhD in biochemistry from HMS where he studied under Otto Folin. Together they developed the Folin-Wu method for blood analysis. Wu returned to China in 1924 to become head of the department of physiological chemistry at PUMC where he continued his studies on blood chemistry and nutrition until leaving China in 1948. Carl Ten Broeck '13 served as chairman of the department of bacteriology, parasitology and pathology at PUMC from 1920 to 1927. Another member of the Class of 1913, J. Heng Liu, joined the surgery department at PUMC after leaving the Harvard Medical School of Shanghai in 1918. Liu became the first minister of health under the Nationalist government in 1928.

George W. Char '14 followed the same route, training in surgery at Harvard of Shanghai before becoming head

of urology at PUMC. George W. Van Gorder, an HMS and Peter Bent Brigham Hospital alumnus, served as surgical resident and then director of orthopedics at PUMC from 1920 to 1929, when he returned to MGH. Hu Cheng-hsiang, who began his studies at Harvard in Shanghai, transferred to Boston when that school closed in 1916 and received his MD from HMS in 1921. Hu trained in pathology at the Mallory Institute and joined the pathology department of PUMC in 1919, eventually becoming chairman of the department.

Dramatic events in the world outside medicine intruded from time to time on life at PUMC. Sun Yat-sen, founder of the first Chinese republic, was cared for at PUMC during his final illness. His funeral was held in the PUMC auditorium following his death on March 12, 1925.

In 1926, anthropologist Davidson Black, chairman of the department of anatomy, and W.C. Pei of the National Geological Survey of China, discovered the first skull of *Sinanthropus pekinensis* ("Peking man") at a site west of Peking. These fossils disappeared under mysterious circumstances during the Japanese occupation.

The Nationalist government established in Nanking by Chiang Kai-Shek on October 10, 1928 promulgated new regulations governing PUMC, which required greater Chinese representation on the faculty and board of trustees. In 1929 the collapse of the New York stock market forced the Rockefeller Foundation to sharply curtail its support of PUMC, setting limits on the school's growth. And in the 1930s disagreements over the status of the PUMC religion department led to a widening dispute between the Rockefeller Foundation in New York and the PUMC board of trustees in Peking. (Although no formal test of religious affiliation was required for admission to PUMC, John D. Rockefeller Jr. had personally assured the missionary societies that the "Christian" character of Union Medical College would be preserved. In fact, PUMC Hospital continued to employ evangelists who plied the wards seeking converts.)

On July 7, 1937 the "Marco Polo Bridge (Luguoqiao) Incident" gave Jap-



Walter B. Cannon, 1935

anese troops a pretext to occupy Peking. A handful of PUMC students and Chinese members of the faculty escaped to Chungking in the west to continue the struggle against Japanese occupation. Consideration was given for a time to relocating PUMC in Nationalist-controlled China, a move eventually rejected as infeasible. On Monday, December 8, 1941, the day after the attack on Pearl Harbor, PUMC was closed by the Japanese army.

After the war's end a third China Medical Commission was dispatched by the Rockefeller Foundation and yet another HMS dean, Sidney C. Burwell, served on its staff. Although classes reconvened at PUMC in October 1947, political events soon overtook attempts to reorganize the school. In fact, the college housed the executive headquarters of the tri-partite (American, Nationalist, Communist) peace commission headed by General George C. Marshall, an abortive attempt to reconcile the opposing factions in post-war China.

On February 3, 1949 the Communist Eighth Route Army took control



William T. Councilman, 1923

William T. Councilman, 1923

of Peking from the Nationalist troops, and on October 1, Mao Zedong proclaimed the establishment of the People's Republic of China from the rostrum atop the Gate of Heavenly Peace, six blocks from PUMC. The school continued to function for a time, but conflict between the United States and China over Korea doomed the continued collaboration of the Rockefeller Foundation and PUMC. On January 20, 1951 the school was nationalized by the PRC.

The precise history of PUMC during the years 1951 to 1979 remains obscure. After nationalization the school was renamed China Union Medical College, and it came under the jurisdiction of the Central Military Committee of the People's Revolution. Throughout 1951 and 1952 efforts were concentrated on the "reform" of educators, scientists and intellectuals in Peking who had cooperated with the Americans. Many of the school's faculty and students were dispatched to Korea to serve in medical units in the "War to Resist American Aggression and Aid Korea," as the Chinese refer to the Korean conflict. The position of PUMC as an elite, expert institution was anomalous in the newly socialized People's Republic.



The PUMC Class of 1984, with Dan and Kit Kuritzkes in center of front row.

In 1956 the former Chinese National Institute of Health was reorganized as the Chinese Academy of Medical Sciences (CAMS) with its main campus at PUMC. Adhering to the Soviet model, responsibility for basic and clinical research was invested in CAMS, whereas the medical college, which reopened in

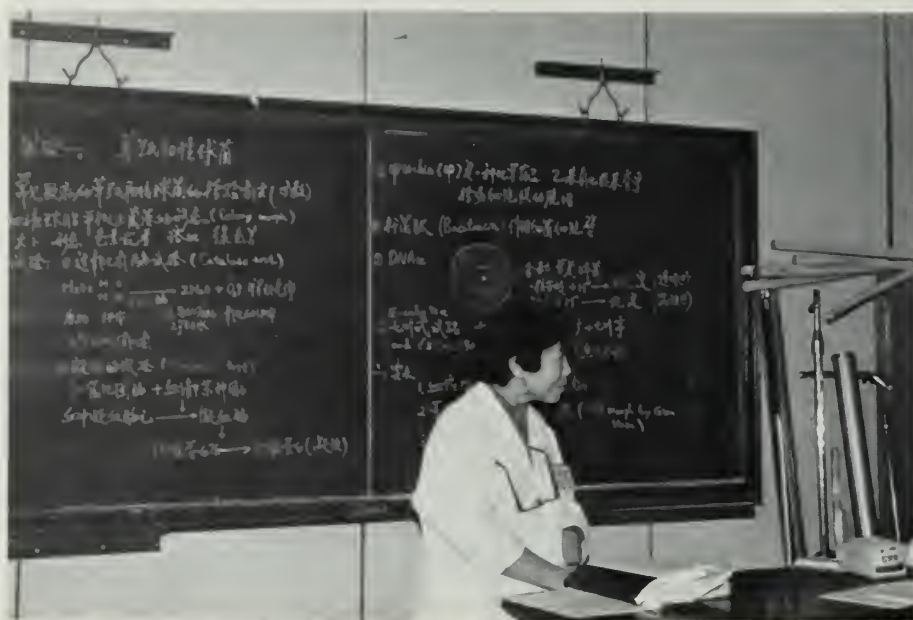
1959 as China Medical College, was responsible solely for the education of physicians. Thus the ties among research, teaching and patient care which the China Medical Commission had worked to establish were severed. At the same time the school was rocked by the ideological struggles of the "Anti-Rightist Campaign" of the late 1950s.

A semblance of order prevailed during the early 1960s, and PUMC once again assumed a leading role in Chinese medical education. Then, with the launching of the "Great Proletarian Cultural Revolution" in 1967 came catastrophe: the school was closed, laboratories disbanded, and its faculty and students scattered throughout the country. Bowing to the political pressures of the times, PUMC Hospital was renamed the Peking Anti-Imperialist Hospital. Fully 20 years would pass before degrees in medicine would again be awarded by the school.

A return to normalcy followed the death of Mao in August 1976 and the ensuing power struggle that elevated Deng Xiaoping to leadership. Cognizant of the appalling dearth of young men and women adequately trained to assume positions of leadership in education, engineering, the sciences and medicine, the government rapidly reopened the universities and instituted a system of national examinations to select students for admission to higher educa-



Procession at the first PUMC graduation.



tion. PUMC graduates whose education had been interrupted by the Cultural Revolution were brought back for extensive retraining as residents.

In 1979 Peking Union Medical College admitted its first class of 30 undergraduates, drawn mostly from Beijing. That same year, an American delegation was invited to inspect the school and advise on the construction of a new medical center. HMS was again

well represented, this time by Dean Robert Ebert and Charles Sanders, then general director of the Massachusetts General Hospital. The newly recruited students embarked on an eight-year course of study that culminated in September 1987 with the granting of the degree "master of medicine" (the government has not authorized the granting of MD degrees). The graduation ceremonies, at which my family and I

were fortunate to be present, also commemorated the 70th anniversary of Peking Union Medical College (its old name finally restored in 1985) and the 30th anniversary of the Chinese Academy of Medical Sciences.

On July 5, 1985 HMS Dean Daniel Tosteson and Gu Fangzhou, president of PUMC and the Chinese Academy of Sciences, signed an accord in Beijing to develop one of the first formal medical exchange programs between the United States and the People's Republic of China. Also present at the signing ceremony was Edmund C.C. Lin, professor of microbiology and molecular genetics at HMS, my former MD thesis adviser. Through the efforts of many people, including David Eisenberg of New England Deaconess Hospital and Mitchell Spellman, dean for medical services at HMS, plans for the cooperative agreement evolved.

In the summer of 1986 Daniel Federman, HMS dean for students and alumni, visited PUMC and confirmed the institutional commitment. Dr. Gu returned the visit to HMS in April 1987 and that month two senior medical students from PUMC, Chen Dan and Jia Ran, began three months of rotations at HMS as the first Chinese exchange students. Subsequently, I was invited by PUMC to spend three months in China as visiting lecturer in microbiology.

With the generous support of the Dalton Fund of Massachusetts General Hospital and the Ella Lyman Cabot Trust, I arrived in Beijing in late August 1987 with my wife, Kit (a senior programmer/analyst in the office of information systems at HMS), and two-year-old son, Benjamin. There we lived in two rooms of the Union Guest House on Dongdan Santiao directly across from PUMC. Our gracious hosts included Liu Shilian, dean of PUMC, Tang Langfang, dean of curricular affairs at PUMC, and Chen Shiaoian, director of the Institute of Basic Medical Sciences, where my classes were held. Li Li, one of the fresh crop of PUMC graduates, served as able guide, translator and teaching assistant.

As visiting lecturer I taught medical microbiology to fourth-year students as part of their core curriculum. The

course, modelled closely on the one created by Arnold Weinberg and colleagues at HMS, was divided into two parts, comprising basic microbiology and medical bacteriology and mycology. In all, I gave 30 lectures as well as 12 practical sessions in the laboratory, which was organized by Chen Minjun, director of PUMC Hospital's Clinical Microbiology Laboratory. The Upjohn Company and Hoechst provided financial assistance for the preparation of teaching materials used in the course. In addition to my teaching duties I attended weekly infectious disease rounds at PUMC Hospital.

How has PUMC emerged from the turmoil of the last 40 years? Although severed from its hospital and research laboratories, the school has been restored to its position of eminence in Chinese medical education. PUMC students pursue an eight-year course of study patterned after the standard Western curriculum with an emphasis on learning English as the common language of modern science.

Each year 30 students are chosen for entry on the basis of national examinations and secondary school records. Despite its national reputation, PUMC selects students from only four provinces (always including Beijing and Shanghai) in any given year, thereby severely restricting representation from other parts of the country. Perhaps a third of the students are children of physicians, a surprising statistic considering the deprivations suffered by intellectuals during the Cultural Revolution.

In many ways the PUMC curriculum resembles the original plan for the New Pathway at HMS. Students spend the first two-and-a-half years at Beijing University where they study biology, chemistry, biochemistry, English, math and political science. (The *China Daily* reported in October 1987 that following student demonstrations that year, students at Beijing University would be required to spend summers with the People's Liberation Army to instill discipline; it is unclear whether this applies to PUMC students as well.)

The second academic period begins in the spring of the third year, when students move to the PUMC campus for two years of pre-clinical studies, followed by two years of clinical rotations, including traditional Chinese medi-

cine and epidemiology and community health. The curriculum is rounded out by a 20-week research period and a year-long rotating internship during which students receive a stipend from the school.

After graduation students pursue further training as residents at PUMC Hospital or as research fellows at the Institute for Basic Medical Sciences. Although students may express a preference, the

needs of the school take priority in determining postgraduate assignments.

Students live six to a room in the "dormitory," actually one floor of the Institute for Basic Medical Sciences. The rooms are too crowded to accommodate desks, so most students return to the classroom at night to study. The five-year wait for housing forces graduates to live with their parents or to continue living in the dorm as residents





The Great Hall of PUMC

and even as junior faculty. (I heard about a surgeon, seven years beyond medical school, and his wife, also a physician at PUMC, who both still lived in the dorm. They saw each other and their baby, who lived with his grandparents, only on weekends.)

As expected, the students were bright and hard-working. Although their fluency varied, their command of English was adequate to enable me to lecture without a translator. Like students everywhere, they fretted needlessly about their exams. Unlike students at HMS, they were relatively unenthusiastic about clinical medicine. Most of the students I spoke with hoped to do research rather than clinical work, since the life of a research scientist is considered easier than that of a clinician. Tang Lanfang, dean for curricular affairs, expressed concern to me that the low social status and salaries of physicians in China discourage high school students from considering careers in medicine. The average salary for a young doctor was about 80 *yuan* or about \$22 per month, at the bottom of the pay scale for China.

Moreover, since hospitals and laboratories, unlike factories, do not produce marketable goods, there are fewer opportunities to provide bonuses or extra benefits to their employees. Those choosing careers in clinical medicine tend to prefer less demanding careers in dermatology or ophthalmology over pri-

mary care fields such as pediatrics or internal medicine, a situation with which many U.S. residency program directors might commiserate.

The prominence of PUMC and its graduates in Chinese medicine is a continuing dividend of the Rockefeller Foundation's investment of 70 years ago. Whereas no one then could have foreseen the transformation of China from a warring feudal state into a modern socialist country, PUMC has fulfilled the goals of its founders by evolving into an independent *Chinese* institution.

The graduation ceremonies last September were symbolic of the government's commitment to maintain PUMC as a center for excellence in medical education. Many problems remain to be overcome before PUMC will once again live up to the dream of the China Medical Board to create "as good a medical college as can be found anywhere. . . ." The degree to which PUMC will succeed in catching up with the West is inextricably linked to the success of Deng's reforms.

Only in a freer, more vigorous economy will China have the resources to commit to the modernization of its hospital and research facilities. Achieving equity in the distribution of these resources between urban and rural areas is a delicate political issue. The tangled bureaucratic web that extends to every aspect of life in China must be relaxed

if students, physicians and scientists are to have greater freedom to pursue their professional goals. For example, as in other sectors of the Chinese economy, the dire shortage of housing hampers the movement of students and faculty from one institution or city to another. As a result, PUMC is more inbred even than HMS.

The rigid separation of research, teaching and patient care—a legacy of the Soviet influence on Chinese higher education—must be overcome. Although the "Hopkins model" is once again promoted as an ideal, in reality there are too few opportunities to combine clinical and research work. Thus the chances for cross-fertilization of ideas between bedside and bench are sharply curtailed. Finally, China must develop a native biomedical industry to sustain its own health care and research needs; the costs of importing supplies, reagents and equipment are prohibitive.

As China continues its drive towards modernization, PUMC will no doubt rely again on the energetic involvement of faculty from abroad. The HMS-PUMC exchange program hopefully will provide the current generation at HMS with a chance to discover the challenges in teaching and research in China enjoyed by their predecessors at Harvard two generations ago. □

Daniel R. Kuritzkes '83 is a clinical and research fellow in medicine in the MGH infectious disease unit; postdoctoral associate at the Whitehead Institute for Biomedical Research in Cambridge; and HMS research fellow in medicine.





BEDSIDE — I N — BEIJING

by Eddie Chen

As an American of Chinese ancestry, I have always been interested in comparing the two societies, and finally had the chance to do so after my first year in medical school. At that time, the school informed us that there were summer fellowships—named in honor of the renowned HMS cardiologist Paul Dudley White—available to medical students interested in studying some aspect of medicine in a foreign country.

As I inquired among classmates and faculty about what possibilities existed, several recommended that I see Arthur Kleinman, a psychiatrist and anthropologist who had given a few lectures in our social medicine course. Within

five minutes of meeting me he seemed to know exactly what I wanted to do and, though my college background was in chemistry and music, he was quick to suggest projects at my level.

In my project proposal to the Paul Dudley White Traveling Fellowship committee, I indicated a desire to study medical education in the context of a plural medical system in China. Under the guidance of Dr. Kleinman, I proposed to study the cultural influences on teaching the doctor-patient relationship. In the context of China's rapid economic growth, liberalization of society, revival of professional interests, and rethinking of the relationship between Western and traditional orientations to

*During the demonstration of a medical procedure,
neither the preceptor nor the student initiated
any communication with the young patient.*

medicine, I was interested in analyzing the development of clinical teaching. I planned to use a set of criteria designed by Dr. Kleinman for his own studies of cross-cultural comparisons of the doctor-patient relationship.

After this proposal was accepted by the committee, I wrote letters to medical schools and hospital officials in China and gave more detailed plans and objectives. Because the project involved the observation of medical students, my choice was narrowed to Beijing Children's Hospital because students at the other schools were on vacation during the summer.

One of the largest hospitals for children in Asia, Beijing Children's Hospital (BCH) is a Western-style health care facility with over 700 beds, 20 wards, 1,400 employees, 1,000,000 outpatients and 13,000 admissions per year. Almost all specialties are represented, including departments of traditional Chinese medicine and acupuncture. The hospital cooperates with international organizations like the World Health Organization and UNICEF, and participates in child public health programs for the immediate area. BCH is one of several teaching hospitals of the Capital Institute of Medicine; during the five-year program for the MD degree the students spend their last two years full time at the hospital, both at the bedside and in the classroom learning how to treat patients.

I spent most of my time observing the activities of the fourth-year students who had just completed three years of full-time classroom work and were learning how to treat patients for the first time. Despite immersing themselves in the hospital environment, the students actually spent only approximately half of their time at the bedside or examination room. The remaining time was spent in the classroom, where preceptors introduced new material

and integrated the students' clinical experiences.

During their five years at this school, the students are trained to serve in a large or medium-sized city hospital. This contrasts with the "upper tier" (e.g., PUMC), in which students train for eight full years with the future goal of combining clinical practice, teaching and research. In the "lower tier" students are trained for three years to serve at a local or distant commune as a low-level practitioner.

Excerpt (from journal): *Comrade Xie, a former military officer, is giving a special lecture to the medical students entitled, "History of Our Great Country, China." In this lecture hall, which is the same one used for medical lectures, the layout is simple. There are no microphones, loudspeakers, slides or projector screens. The talk is designed to put into perspective the young doctor's future role in the country, a practice that is in line with the government's general policy that emphasizes the struggles of the past in order to build for the future. For China, the Great Wall is a symbol of preservation and protection from attack by outsiders, and its construction is a symbol of past hard work and struggle without the benefit of advanced technology.*

This obviously forceful and inspiring lecture has stimulated the students. Their behavior here is very similar to that displayed during medical lectures. The attentive yet passive students are diligently taking notes. Unlike U.S. medical schools, the students do not ask questions before, during or after the lecture.

After sitting in on several hours of lectures on tuberculosis, immunology and neonatology, I notice that the teacher and the students hardly address the psychosocial aspects of the doctor-patient relationship.

Similar to applause given after a lecture in some U.S. medical schools, in China the students stood up following the lecture in recognition of their teacher. In spite of the country's socialism, people are still raised with the Confucian ethic that defines certain relationships as deserving respect: emperor-subject, father-son, and in this situation, teacher-student.

The reticence of the students in the classroom carried over to the wards, where they seemed nervous, hesitant and reserved. During the demonstration of a medical procedure, neither the preceptor nor the student initiated any communication with the young patient. The discussion period following student rounds served as a time for reinforcement of the basic concepts that had been covered in a recent lecture. The preceptor led the discussion, but there was little response from the students.

Excerpt: *Because of the high incidence of tuberculosis in this country, there is a separate TB ward at BCH. The student reads off the chart. "Female, 8 years old, plenritis and TB. Intermittent fever for two years with initial diagnosis of the common cold. . . ." The girl stares as the students crowd around her and awkwardly practice their percussion technique. Without saying a single word, they move to the next patient. "Female, 2 years and 9 months, anemic. Came in coughing and wheezing and was diagnosed as having TB. Positive family history of TB."*

The students start feeling the lymph nodes in her neck. Food particles are around her mouth and she looks very upset, but no one wants to speak with her. I feel sorry for her because she obviously is frightened by all these people wearing white coats and masks who are groping at her neck and are not saying anything to ease the discomfort.

The officials said they were proud of the fact that 3,000 patients a day came through the department.

The students then move to an 8-month-old infant and poke around with their fingers and stethoscopes while the preceptor lectures on the appropriate technique. As I look around, I notice that nothing has been done to improve the atmosphere: no pictures on the walls, no stuffed animals. Some children are reading books, but most sit idly.

Despite its reputation in care and research, the Beijing Children's Hospital faced the same problems plaguing other hospitals in the Third World: the lack of modern equipment and sanitation. Despite the crowds, noise and absence of privacy, each patient and accompanying parent seemed to carry out their own matters patiently and in an orderly fashion. The children themselves for the most part were calm, passive and indifferent, even though through a child's eyes the hospital and its practices must have seemed frightening.

With the one-child policy in China, the child became an even more precious commodity; and because the parents knew that they were going to be dependent on this child in the future, investing in their child was like investing in themselves. Therefore they were willing to make the appropriate sacrifices. But the heightened anxiety associated with a child's illness, no matter how trivial it may have seemed to the doctor, brought an additional burden to the delivery of quality health care.

Excerpt: *I am now sitting in the general outpatient department with Dr. Gao. Earlier the officials said they were proud of the fact that 3,000 patients a day come through this department. Now I have the chance to see how they are able to accomplish this feat. In the room there are eight doctors with their own desks, and there is only one exam-*



There are no curtains or barriers, and the high noise level is a reflection of which parent in the room can talk louder than the others.

ining table in the middle. Families wait outside, and when their number is called they go to the next available doctor.

Privacy and confidentiality, considered sacred in doctor-patient relationships in the West, do not exist here. There are no curtains or barriers, and the high noise level is a reflection of which parent in the room can talk louder than the others.

The doctor asks few questions and relies primarily on the patient's history as told by the parent. The physical exam, if performed, consists only of inspection and auscultation, but because of the noise level, the latter is difficult. One baby's hysterical crying is loud enough for everyone in the room to stop what they are doing to wait for the crying to subside. Despite near-chaotic moments, no one loses their control, and the situation remains calm and orderly. The average length of interaction between doctor and patient here is around five minutes, and in this two-hour period, Dr. Gao sees 22 patients.

From watching and listening to numerous interactions between the doctor/student and parent and child, I was able to make several general observations. The average length of interaction, both in the outpatient and inpatient setting, was under ten minutes. The parent talked more than the doctor and stayed with the child throughout the physical exam. Parents made specific requests and asked pertinent questions.

Particularly in the outpatient setting, the doctor-patient relationship lacked continuity because there was no guarantee of finding the same doctor who had treated the child previously. Everyone had to take a number and wait two to three hours in line for the next available doctor.

The quality of the relationship was formal. The doctor separated the dis-

ease from the child's everyday life and focused on a particular part of the body that was not functioning properly. Despite their apparent ambivalence, both the parent and the child seemed to have high regard for the power of Western medicine. But unlike in Western society, they did not criticize what seemed in my opinion to be insensitive care. Just being seen was the objective. Moreover, it was apparent that the doctor regarded each child as another "problem."

Within the interaction, the biggest challenge for the doctor was communicating information about the child's disease at a level that could be understood by a peasant from the country or a city machine-shop worker. The doctor avoided introducing psychological or social elements into the discussion. There were differences in etiquette and style of treatment between Western and BCH doctors, but the perceived locus of responsibility remained with the family.

Excerpt: *The case presentation on rounds is a one-year-old female who was admitted 11 days ago with a fever and rash on the hands and feet. Initial diagnosis was the common cold, but after consultation the doctors and students decide that it is actually Kawasaki's disease. Again we are in the middle of a mildly chaotic situation that is under control: babies are crying, other children are walking in and out of the room, and the smell of urine is quite intense.*

On the Kawasaki infant's swollen feet there is dried blood, evidence of self-inflicted scratches. As a result, her legs are tied to the bed. During the discussion and exam the students remain passive, but the infant starts crying. There is no verbal interaction between doctor and her except when the doctor tells her not to resist so that the mouth

can be inspected. The exam is only for a few minutes, and there are no greeting or parting remarks.

What was the reason for the doctors' lack of communication? They were proud of the high number of patients that they had seen, yet from this patient load they were emotionally as well as physically drained. Were they too tired to engage in a more active rapport with the family? By Western standards, there was no financial incentive for them. At the end of a long and tiring day an intern could collect approximately 75 cents in wages, enough for the basic necessities but one-fifth the daily wage of a taxi driver or tour guide.

Their reticence was more likely due to their training and past experience. The emphasis in care was not placed on the person but on the disease, and doctors felt that they could divorce themselves from psychosocial problems.

This concept seemed compatible with a culture in which the belief for a thousand years has been that the interests of the society are more important than the wishes of the individual. One of Chairman Mao's quotes was "Serve the people"; and in order to treat many sick individuals among the masses, the doctors had to be efficient and brief at the expense of the patient's well-being.

Yet the lack of any emotional support for these children in the hospital was disturbing. The doctors spent the least amount of time with them, and the nurses, who were often not in the vicinity, were not inclined to provide this type of support. Their tasks consisted simply of cleaning up after patients, bringing them meals, and assisting the doctor with medical procedures. As a rule, families could only visit once a week, so aside from the interaction with the other children in the ward, these patients were isolated. Because of their age and lack of maturity, the

At the end of a long and tiring day an intern could collect approximately 75 cents in wages.

other children were not able to provide emotional support.

Without an outlet for their anxieties, the children withdrew from their environment and stayed quiet. Such a standard of care would not have been acceptable by Western standards, but in China the child and the rest of the family seemed to accept it.

From my own observations of local and lower levels of the Chinese health care system, this was not simply limited to a tertiary care hospital such as BCH. In none of the medical schools I visited in China was time set aside to discuss salient features of the doctor-patient relationship and the psychosocial aspects of illness. The approach to the patient was a technical one based on what was learned from books.

It seemed that any interaction skills or ability to initiate communication were intuitive, based on the student's personality. But to secure a position in medical school, a student typically had to lead a disciplined and strenuous life with little time for development of communication skills. Also, medical school selection was made on the basis of test scores which had little predictive value in measuring one's ability to communicate. For the most part, the students' lifestyles seemed rigid and isolated. They contrasted sharply with my own classmates who had assorted non-medical interests and hobbies, some even placing their medical education second in priority behind more worldly concerns such as human rights.

While I was in China, however, the curriculum was already moving toward recognition of the patient as a person. In class the students saw videotapes that covered the daily activities of children with diseases like diabetes and rickets. The atmosphere in the videotapes contrasted with the pain and suffering in the hospital. The children with rickets were shown having a good time



Waiting to see a doctor.

Fields like psychiatry, which were considered taboo during the Cultural Revolution, are receiving renewed interest and scrutiny.

in an amusement park despite their physical handicap. They then went to Tiananmen Square in Beijing, followed by a trip to a countryside dam surrounded by beautiful mountains and rivers. During a lunch break the children with diabetes reviewed their diet and practiced giving themselves insulin injections.

The narrator, in a pleasant voice, emphasized that outside the hospital these children could lead normal lives with appropriate education and support. These settings seemed artificial, and the background music consisted mostly of Barbara Streisand melodies. Nevertheless, from this the students could gain a better understanding of the diseases from the children's points of view.

Excerpt: *After leaving at 7 AM and taking three different buses, two medical students, Dr. Gao and I arrive in Yungang, a suburb outside Beijing. We proceed to walk toward the south, hitchhiking rides on tractors and climbing hills along the way. During the five-hour odyssey we are lost several times, and after asking the locals for directions we become further confused. My dissatisfaction from being tired and lost contrasts with the other three's perseverance. Throughout they remain optimistic and appreciative of the life of a peasant. Dr. Gao reminisces about his two years in the countryside before starting medical school.*

We finally find the small commune. At a farmer's house we talk to a mother whose son had been hospitalized at BCH for anemia. As part of their requirement, these two medical students follow-up nine or ten former patients. Some patients live in the city and others, like this one, come from the countryside.

The mother is very hesitant about sending her only son back to a doctor

because his father recently passed away. She is too old to help with the farm and is dependent on her son's work for their income. The two students acknowledge the problem but continue to try to persuade her.

They then begin to negotiate by telling the mother that the son would not have to go into town but could go instead to a nearby clinic. After one hour, the issue is not yet resolved, and the mother is still frightened by the possibility that her son could still be sick. Nevertheless, I am surprised that these students have just spent a great deal of time and effort dealing with the psychosocial issues in this case. It contrasts with the hospital environment.

The personal nature of the incident in the countryside demonstrates that there is not a total lack of attention toward the psychosocial aspects of care, but as a medical student raised in this country, I find it difficult to accept the general lack of attention paid toward personal and contextual issues. By ignoring this aspect, students do not obtain a complete picture of the patient's illness.

Despite cultural differences in how illness is perceived, I believe the Chinese could benefit from putting more emphasis on the doctor-patient relationship. They could spend more time with each patient and recognize factors at home and in the family that could modify the outcome of the illness. The doctor could play a more active role by showing empathy, shifting his viewpoint of the patient from a "problem" to a person who is sick and needs help.

Families should be allowed to visit their children on a daily basis, and the wards made to simulate the home environment as much as possible because the developing child is at a stage when the quality of the interaction and atmosphere greatly influence outlook and

attitude. Changes could begin in medical school where students might learn that if they provide sensitive and human care, these patients will respond favorably.

The videotapes symbolize an attempt to address psychosocial aspects at the medical school level, but perhaps a more formal study of the doctor-patient relationship could be introduced. It certainly merits serious consideration, particularly as material conditions and personal expectations improve in China.

Fields like psychiatry, which were considered taboo during the Cultural Revolution, are receiving renewed interest and scrutiny. Great strides have been made in areas of preventive medicine and treatment. Perhaps it will not be too long before patients and doctors think more about their relationship and address the issues that Western physicians and behavioral scientists have grappled with for some time. □

Eddie Chen is now in his fourth year at Harvard Medical School. He and classmate Daniel Bloomfield will be the first HMS students to go to Peking Union Medical College for three months in 1988/89 as part of the HMS/PUMC exchange agreement.





C L A S S

D • A • Y



The red Harvard banner glowed from refracted sunlight as a damp but euphoric crowd of families and friends packed together under the white tarp tent seeking refuge from the rain. Cameras clicked and excited little boys wearing bright red ties dashed here and there waving polaroids. Showy spring dresses, colorful ties and celebratory flowers disappeared under raincoats. But not to worry.

The largest class ever to graduate from Harvard Medical School marched past the podium this year, exactly 200 years after the smallest—the very first—class did the same. In 1788 the “Medical Institution of Harvard University” conferred Bachelor of Medicine degrees (the only medical degree given until 1811) on George Holmes Hall and John Fleet. This year Doctor of Medicine degrees went to 170 proud and deserving grads, many of whom also received special honors, awards or additional degrees—Doctor of Philosophy, Master of Arts, Master of Public Health or Master of Public Policy.

The Class Day program provided both humor and a sobering dose of realism. Jeffrey Ecker’s side-splitting account of his HMS experience ended with the realization that “It is possible to know all the pharmacology, physiology, anatomy and pathology of a disease, and yet fail the patient for lack of holding a hand.”

J. Randall Forbes commenced his talk with an advertisement for the position of doctor: “Successful applicants will be exposed to debilitating or fatal diseases, and will acquire the ability to

sleep while standing or even while walking. Starting salary is approximately \$4 per hour. We are an equal opportunity abuser.”

The keynote speaker, U.S. Surgeon General C. Everett Koop, struck a more serious tone in discussing (as did Martin Samuels in a lighter vein) some of the many ethical imperatives looming on the medical horizon. “Virtually every ethical question that has arisen from a wide range of other health problems,” declared Koop, “has also been raised regarding the single problem of AIDS.”

Koop urged the graduates to consider the ethical dilemmas raised by the AIDS epidemic before the voices of lawyers, judges, CPAs and all manner of other people “all but drown out the voice of medicine—*your* voice, I might add.” And he warned the class against “the folly of seeking quick-and-easy answers.”

Spirits and confidence were high when the grads stood in turn amidst clicking shutters and the din of wild applause to accept their degrees. And the Class of ‘88 had accolades for others in return. Student co-moderator Tammy R. Fountain praised Jerry Foster, dean of admissions, for his efforts to assure ethnic, racial and extra-curricular diversity in the class. Elio Raviola, HMS professor of human anatomy, received the pre-clinical teaching award; the clinical teaching award went to Richard E. Wilson, HMS professor of surgery; and Registrar Noreen Koller received the “Special Award from the Class of ‘88.” Robert Masland, head of adolescent medicine at Children’s Hospital, and Carolla Eisenberg, dean for

student affairs, were chosen to help each exalted member of the class don the traditional black and pink hood before they one by one mounted the stage for a handshake with the dean.

Fifteen students graduated cum laude, six graduated magna cum laude in a special field and nine were honored with prizes and awards:

Benjamin Boris Brody, cum laude: “The Impact of AIDS on Large Massachusetts Based Corporations.”

George Hadley Callaway, cum laude: “The Histologic Correlates of Adriamycin-effect in a Murine Model of Classical Osteosarcoma.”

Regenia Adell Carpenter, Kaiser/National Medical Fellowship Merit Award for outstanding academic achievement by a graduating minority medical student.

Luke Paul Cheung, cum laude: “Sodium and Water-Suppressed Proton Nuclear Magnetic Resonance Spectroscopy of Normal and Neoplastic Tissues.”

Jay Hang Chung, James Tolbert Shipley Prize for research, the results of which have been published or accepted for publication: “Trans-acting Elements Modulate Expression of the Human c-myc Gene in Burkitt Lymphoma Cells” and “The c-myc Gene Encodes Superimposed RNA Polymerase II and III Promoters.”

Steven Lowell Denlinger, cum laude: “Differential Enhancement of REM Sleep Signs in the Cat: A Comparison of Micro-injection of the Chlorinergic Agonist Carbachol and the Beta Adrenergic Antagonist Propranolol on PGO Clusters.”

John Christopher Eagon, cum laude: “Quantitative Frequency Analysis of the Electrogastragram During Prolonged Motion Sickness.”

Jonathan Alan Epstein, magna cum laude: “After Transfection of a Ouabain Resistance Gene a Cultured Cell Line Can Express an Inducible Ouabain Resistant-Amiloride Sensitive Na-K Pumping Activity and Displays Unusual Morphological Changes.” The Leon Reznick Memorial Prize for excellence and accomplishment in research.

Martha Potts Fishman, cum laude: “Expression of Additional Endogenous Oncogenes in Transgenic Breast Tumors.”

Richard Eliot Gliklich, cum laude: “Studies of Open-Angle Glaucomas and Visual Field Changes: Progression of Visual Field Loss in Treated Patients with Primary Open-Angle Glaucoma and Low Tension Glaucoma and Visual Field Changes.”

Rita Jan Gurley, magna cum laude: “The Immunopathogenesis of the Acquired Immunodeficiency Syndrome.” The Henry Asbury Christian Award for notable scholarship in studies or research.

Ethical Imperatives and the Patient with AIDS

by C. Everett Koop

Linda Sanders Haigh, cum laude: "The Role of Cholesterol in Regulating Muscarinic Cholinergic and Beta Adrenergic Responsiveness in Cultured Chick Atrial Cells."

Elizabeth Ann Healey, cum laude: "Can the Clinical and Mammographic Features on Presentation Predict the Presence of an Extensive Intraductal Component (EIC) in Early Stage Breast Cancer?"

Lloyd Albert Hey, cum laude: "Health Status and Health Care in Greater Boston Adolescent Emergency Shelters: New Opportunities for Health Providers to Join the Team." The Rose Seegal Prize for the best paper on the relation of the medical profession to the community.

William Barry Hillegass Jr., magna cum laude: "Acute Cardiovascular Events Related to Thrombosis and Embolism."

Anna Huttenlocher, The New England Pediatric Society Award.

Raymond Lee, magna cum laude: "Efficacy and Preliminary Toxicity Testing of a New Blood Substitute."

Eugene Yu-Hwa Liu, cum laude: "Transferrin Receptor Mediated Intoxication of Target Cells by a Transferrin-CRM45 Conjugate Toxin."

Roger Charles Nuss, cum laude: "Infrared Laser Bone Ablation."

Annabelle Ayame Okada, cum laude: "The Contribution of Mitochondria to Calcium Homeostasis in Cultured Heart Cells."

Edward Thomas Ryan, cum laude: "Hirschprung's Disease: An Analysis of the Past 25 Years at the Children's Hospital Medical Center in Boston—With Special Emphasis on Demography, Genetics and Associated Abnormalities."

David Robert Senechek, magna cum laude: "Lymphadenopathy and AIDS." The Harold Lampert Biomedical Research Prize for the best paper reporting original research in the biomedical sciences.

Joseph Ben Shrager, Richard C. Cabot Prize for the best paper on medical education or medical history: "Dorothy Reed, Florence Sabin, and Margaret Long: A View of Three Women Medical Pioneers."

Andrew Martin Tager, magna cum laude: "Genetic Investigation of Human Mammary Epithelial Cells Immortalized and Transformed in Tissue Culture."

Swee Lian Tan, cum laude: "Electron Spin Echo Spectroscopy of Ethanalamine Ammonia-Lyase, a Vitamin B₁₂-Dependent Enzyme."

Steven Jay Warach, Dr. Siray Sanger Award for excellence and accomplishment in research, clinical investigation or scholarship in psychiatry: "Cerebral Hypometabolism as Necessary for the Generation of Hallucinations and Other Spontaneous Mental Imagery: Hypothesis, Literature Review and Clinical Implications." □

I am very pleased and honored to have been asked to deliver this year's Class Day address here at Harvard. Over the years I've developed strong friendships with many members of the Harvard medical and public health communities. Their wise counsel and patient support have been very important to me as your surgeon general.

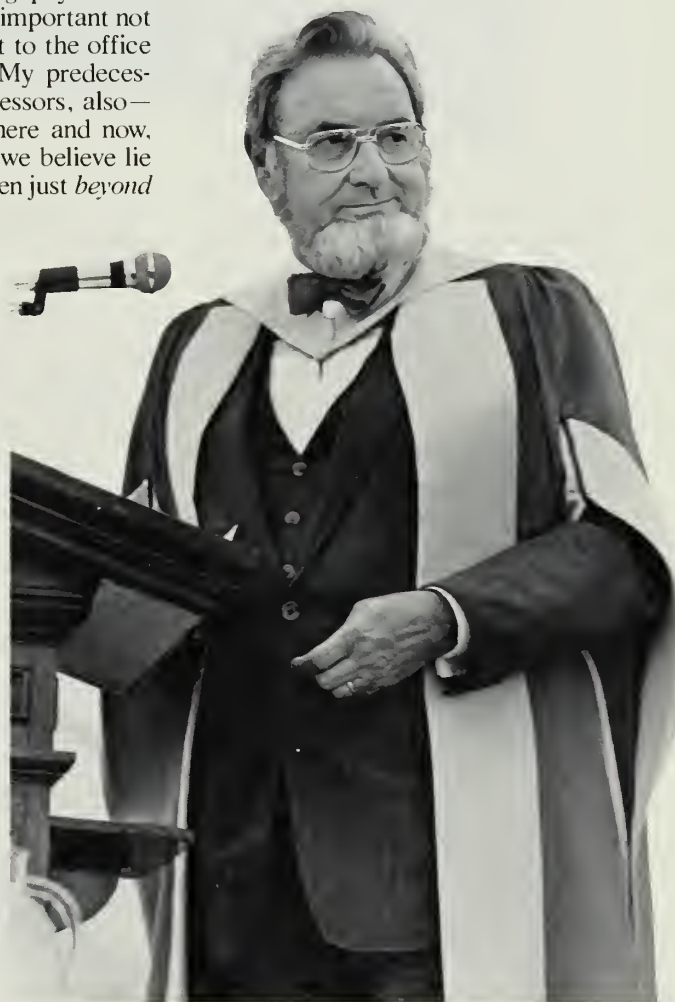
But those friendships are with faculty, with the "establishment," with the members of the "old boy" and now the "old girl" networks. Your invitation, therefore, carried with it a most welcome and most heartening message: I have friends among *young* physicians, too. And that's extremely important not just to me personally, but to the office of the surgeon general. My predecessors and I—and my successors, also—deal with issues of the here and now, but also with issues that we believe lie just *on* the horizon—or even just *beyond* it.

On my own watch, for example, since 1981, I have had something to do with such public health matters as teen-age pregnancy, fetal alcohol syndrome and family violence. Those are the "here and now" issues. But I've also been concerned about improving health services for the handicapped, expanding health services for the aged, and of course, responding to the challenge of AIDS.

I want to spend these few moments talking about AIDS, but not in a way that might alarm or upset you, your families or your friends on this otherwise glorious day. And anyway, this is a commencement, not a

grand rounds. So, with your indulgence, let me approach this extremely important health and social issue from the viewpoint of the several ethical questions it has raised for medicine and, indeed, for all of society.

First, I want to tell you that this address is the fifth in a cycle of six medical school commencement addresses I am delivering this spring—each one different, of course—but all of them concerned with the "ethical imperatives" that confront the new physician.





I gave the first one a month ago in Washington, D.C., and I will deliver the sixth next week in Chicago. Sometime later this summer I hope to send each of you a final published copy of all six addresses. You see, I don't want you to miss a word of it.

Why am I doing this? To begin with, the subject of "ethics" seems to be on everyone's mind these days: lawyers, educators, government officials, business managers and physicians. I need not remind you that two of the biggest box-office hits from Hollywood this past year were *Wall Street* and *Broadcast News*, both of them very tough-minded stories about personal ethics that went sour. Also, from my own experience as surgeon general, I can tell you that there's been an important ethical dimension to every medical and health problem that was placed on my agenda since the day I took office back in 1981.

Today, I want to focus on the ethical side of the issue of AIDS. And I do so because virtually every ethical question that has arisen from a wide range of other health problems, has also been raised regarding the single problem of

AIDS. Were I to give this address a sub-title, it might be "the reluctant physician."

As you know, I'm sure, AIDS is virtually 100 percent fatal. We have no vaccine against it and no drugs to cure people who become infected. People get AIDS by doing things most people don't do and do not approve of. And our only weapon of any consequence at this time is public education to change some rather basic human behaviors, including sexual behavior. AIDS, then, has all the elements of a major human tragedy: fear, prejudice, rejection and hopelessness.

Last year I wrote an editorial in *JAMA* asking physicians to take the lead in the fight against AIDS. I don't think I underestimated the responsibilities I was laying before the medical community. But, in retrospect, perhaps I should have spelled it out more fully.

In this "age of AIDS" physicians are being asked to do things they don't like to do. For example, to care for young patients who may get well for a short period of time and then die. To treat a number of rare maladies they

never saw before that are bunched together under the glib label of "opportunistic diseases." We ask them to test for HIV antibodies and then to counsel patients who are HIV negative how to *stay* negative. To counsel patients who are HIV positive how to protect *other* people, and how to face the future. And to counsel those patients who *refuse* to be tested altogether.

All that is bad enough, but we're also asking physicians to take a sexual and drug-use history of appropriate patients—and in many practice areas that might mean *most* patients.

But as Dr. Neil Schram of Los Angeles says, "Most physicians have had little training for this, so a great deal of new information and a great many new skills must be learned and applied." And I would add that such skills must be "learned and applied" *right now*.

What I just discussed concerns, of course, the danger to the general public. But should physicians also be concerned about the potential danger to themselves? Yes, they should.

While you, as practicing physicians, are mankind's first line of defense against AIDS, ethically you should be as concerned for your own health as you are for the health of your patients. This is not an overwhelming task, by the way. Quite early in the history of this epidemic, the U.S. Public Health Service published a set of common-sense safety guidelines for all health personnel, including physicians. The guidelines suggest you use gloves and be especially careful around needles and scalpels, when treating patients with AIDS.

I should also mention the guidelines of the American Hospital Association concerning the handling of body fluids. They are sensible and I believe they, too, ought to be followed as a *general* rule, not just in cases where seropositivity is suspected.

I think these guidelines have worked, along with the good sense of health professionals everywhere. Of the nearly seven million people involved in health care in this country—physicians, dentists, nurses, lab technicians, emergency room personnel and so on—*fewer than a dozen* have become accidentally infected with the AIDS virus while providing direct patient care. And in almost every case the accident could have been prevented.

But despite this extraordinary safety record we still hear—every day—instances in which a physician, dentist, nurse or other health professional has refused to treat persons with AIDS, or even to treat persons whom they *suspect* of having AIDS. Such conduct has never

been condoned. And you need look no further than the Hippocratic Oath for proof. Almost 2,400 years ago, Hippocrates wrote, "I will use treatment to help the sick according to my ability and judgment but never with a view to injury or wrongdoing."

Denying treatment to someone who has AIDS, turning away a person who is sick and dying—that is doing something wrong. It was wrong 2,400 years ago. It's wrong today. And it will continue to be wrong tomorrow, while this terrible epidemic is still with us.

Fortunately, the majority of physicians and other health professionals have forthrightly re-stated the Hippocratic principle in contemporary terms. The refusal to treat AIDS patients is unacceptable professional behavior, say the American Medical Association, the American College of Physicians, the American Nurses Association, the American Dental Association, and many others. And of course, I have said it over and over again in the past two years, in the media—newspapers, radio and TV—and from dozens of platforms such as this.

I don't want to over-state the case, so I will gladly acknowledge that nationwide the great majority of our colleagues, when asked, have indeed provided—and will certainly *continue* to provide—quality, compassionate care to persons with AIDS.

But the ethical conduct of the majority should not in any way shield the unprofessional and unethical conduct of a fearful and irrational minority, conduct that threatens to rend the very fabric of health care in this country. If such discriminatory conduct is permitted with regard to AIDS, then what will be the *next* excepted condition or class of patient?

But again, I would emphasize that physicians should not be unnecessarily exposed to risk, because of their *ethical* conduct. I've already mentioned the Public Health Service guidelines, but I think we need to look at patient testing as well.

I believe that routine testing of all patients is unnecessary and presents a greater burden to institutions than the occasional AIDS patient does. However, testing patients on a case-by-case basis makes sense. If a hospital admits a patient who presents the marks and symptoms of an intravenous drug addict—and if the institution is in an area where, in fact, AIDS has been reported—then I think the institution has an obligation to its staff to do a routine blood test for AIDS on that new arrival.

I think the same should be said for

a homosexual patient with a history of sexual promiscuity and/or sexually transmitted disease, and for a heterosexual patient with a history of multiple sex partners. Of course, such a policy means strong internal controls over test results and a restricted circle of personnel who have a "need to know" those test results.

Hospitals already have such control systems in place. Are they perfect? No, they're not. I've been in medicine for almost a half century and I haven't seen perfection yet. Why should it suddenly appear now?

But that argument is not good enough to prevent an institution from establishing a policy of restrained patient testing for the presence of AIDS antibodies. I think that people who cannot control their own high-risk behavior should not expect—nor should they get—a "free ride" from the health care system. There are penalties for high-risk behavior. One of them is the possibility of *dying* of AIDS. Another is the possibility that you will be *tested* for AIDS, as a prior condition to receiving medical care.

In any case, I don't believe the ethical questions surrounding the AIDS issue are questions for health personnel only. Society *in general* ought to be held to a strong ethical standard. Neither medical personnel nor anyone else should be placed at any unnecessary or preventable risk, if they otherwise act in an ethical manner.

Conversely, if medical personnel or *anyone else* can't abide by a common,

community standard, then they must be prepared to pay a price. And it could be a very high price.

If a physician or other health worker becomes seropositive or has AIDS, I believe that person is obliged to report such information to his or her supervisor. From that point on, I suggest that a local committee of peers ought to decide what the infected person can and cannot do in health care. And I might add that the longer the health profession delays establishing ethical procedures covering its own people with AIDS, the sooner will the public lose patience and turn to the courts for relief. And the courts will, once again, have to step in and tell medicine what to do.

And finally, what about the cost of health care for people with AIDS? What is the ethical imperative in *this* issue? You know, of course, that the American taxpayer willingly supports maternal and child health programs, for example, and diabetes control and hypertension screening programs, and so on. Related physician services, nursing care, laboratory fees, most of those are also paid out of general tax revenues.

Taxpayers also support programs for alcoholics, drug addicts and persons with syphilis. You might one day provide those services, or—tragically—you might one day need them yourself. In any case, those are programs that are geared to bring—or bring *back*—men, women and children to a state of good health. We *like* those programs. They serve important purposes and they aren't very expensive either.



Carola Eisenberg and Robert Masland hood Laura Torres and Julia Toxey.



The AIDS program ought to be in this category, too. But it really isn't. After consuming tens of thousands of dollars worth of medical care and social services, the AIDS patient is not cured. The patient dies. As I mentioned earlier, and as you know full well, I'm sure, this disease is virtually 100 percent fatal.

Now, the AIDS case-load is climbing. And so are the costs. The care required for an AIDS patient is both technology and labor intensive. Hence, the average cost of care for *one* AIDS patient for *one* year is \$20,000, according to figures recently published in *JAMA*. In 1991, we anticipate logging in 74,000 *new* AIDS patients. The total cost of patient care that year could be at least \$4.5 billion, or as much as \$8 billion if you include the cost of lost productivity and so on.

Will the American people continue to support high-cost patient care for people with AIDS? Will you be willing to supply such care—*regardless* of the way you're reimbursed? Will the general public ask for relief? Will they ask that corners be cut? Will they demand a cheaper kind of "second-class care" for AIDS patients? And if they do, will you go along with that? Or not?

I urge you to work out in your own minds just what your response to these ethical issues might be, as they arise in your professional lives. Because they surely *will* arise, and in some highly publicized way, too, I feel sure.

That hasn't happened yet. But I'm positive that the disease of AIDS will soon have its own patient, someone like "baby Doe" or Karen Ann Quinlan, a

person—at once both real and symbolic—who will suddenly synthesize all the various arguments, pro and con, about the cost of care for AIDS patients. Lawyers and judges and CPAs and all manner of people will take to the public platform to argue the ethical questions raised by the case. And they could all but drown out the voice of medicine—*your* voice, I might add.

That's why I feel it is essential for each of you to look at these matters now—before they hit the streets and the evening news—and before you yourself are goaded into making a hasty and unethical response to the questions raised. I'd like to surprise you and come up with some hard and fast answers to the questions I've raised today. But I don't have them. No one has.

Yet, *all* of us should be deeply concerned about the answers that will be evolving over the years ahead, and we should be deeply engaged in *that* process as well.

Many years ago, the American philosopher Alfred North Whitehead warned us about the folly of seeking quick-and-easy answers to the kinds of questions I've raised. He said it this way: "We must not expect simple answers to far-reaching questions. However far our gaze, there are always heights beyond, which block our vision."

My plea to each of you today is simply this: keep probing, keep climbing, and keep your vision as clear as can be throughout your career in medicine. □

C. Everett Koop, MD, ScD is surgeon general of the U.S. Public Health Service, U.S. Department of Health and Human Services.

CLASS DAY

How I Lost My Belly-Button

by Jeff Ecker '88

When my three roommates heard that I was speaking today, they were full of suggestions. The first has had a classical training and recommended a Latin oration. Unfortunately, my Latin runs only from *e pluribus unum* to *aqua velva*, so I had to reject the idea. The second, a family man, suggested that I talk about the advice my parents had given me when I left for med school. Shame prevented me from following this plan, since the only wisdom my physician/father had offered was "stay awake," and I had failed utterly in that regard. My third room-

mate is a more practical person; his suggestion was simple: Tell them what happened.

Now that seemed like something I could do. So I'll start at the beginning.

The first day of medical school is not really all that different from the first day of kindergarten, except there's no milk and cookies. No one quite knows who's who, or what's what, or how to do an appendectomy. Sitting in the amphitheatre that first day, my classmates seemed an intimidating lot. One was said to have won the Pulitzer. Another the Nobel Prize—twice. A third



had worked in the Peace Corp, supposedly as King of Haiti. But there we were, and together—saints, geniuses and common folk—we stumbled into our first year.

That first year I lost my belly-button. I also lost my navel. In their place I was left with an umbilicus. Sure they both collected lint, but I was kind of attached to my belly-button. In our basic science classes we learned as well that the shin bone was indeed connected to the knee bone; only now it was tibia and patella. The song hardly worked.

Second year, more seasoned now, we studied pathologies and diseases. Like chameleons we picked up every malady we read about. No one simply got a cold anymore; it was either the plague or tsutsugamushi fever. One morning I awoke with stomach cramps after downing a pepperoni pizza the night before and diagnosed labor.

Third year the scenery changed, and things got a little more tricky. In the hospitals we tried to learn to answer to “doctor” without looking stunned. A friend of mine reported a strange and new attraction to any flat surface longer than two or three feet. She found herself staring at counter tops, park benches and empty library shelves. Sleep-starved from too many nights on call, she told me she felt she could nap on a cafeteria tray—so much the better if there was some leftover jello to use as a pillow.

Fourth year brought important discoveries. Many of us recognized that the only place to study cardiology, urology, or whatever, was some place far off, preferably some place with a warm climate and a good local beer. We did all sorts of rotations away from Harvard, but what we were really studying was dermatology—on the beach.

Which brings us to graduation. When I entered Harvard four years ago, I took

a vow. I swore that they weren’t going to change me; they weren’t going to make me into a doctor. Yet here I am. It is an honor and unexpected pleasure to address you today, for entering medical school is like going to the dentist—one never really expects to leave.

And I have changed; we’ve all changed. We’ll never look at an ambulance quite the same way. Our dinner conversations drive others to distraction if not to nausea and another table. We tell our mothers that it is important to watch the balance of fluids and electrolytes when stricken with viral rhinitis, instead of saying that chicken soup might help her cold.

As much as the study of medicine is about disease, it is a disease itself. While we were innocently studying mea-

sles, malaria and other infectious diseases, we were ourselves infected.

So if it seems that all we’ve acquired are odd habits of speech and behavior, someone is sure to ask—and my parents do—“What have you learned?” Well, I’ve really learned how much I don’t know. How much I can’t know. It’s quite a humbling experience, medical school. Unlike many other academic pursuits, medicine is as much a matter of style as it is a discipline of pure fact. It is possible to know all the pharmacology, physiology, anatomy and pathology of a disease, and yet fail the patient for lack of holding a hand. This is both the attraction and frustration of medicine.

My style, if I can be said to have one at this point in my career, is something I have learned in large part—like so many other things here—from my classmates. Truly, they have taught me as much as any textbook or professor, and so today, I offer them my thanks and congratulations. Four years ago I knew they were a sharp and intelligent group; now I know them as friends and colleagues.

And we have all, perhaps against our will, become if not doctors, then people who know an awful lot of stuff, some good, some horrible. If at times this knowledge brings a responsibility that weighs heavily, sharing this responsibility we have grown closer. In the years to come, I expect we will continue to share our thoughts, fears and experiences as we have at Harvard. I look forward to it. □



Class Day co-moderator Jeffrey Hanway, Dean Daniel Federman, C. Everett Koop and Martin Samuels.

The Unwitting Subjects

by Randy Forbes '88

It has occurred to me that part of the excitement here today is due to the fact that we are on the eve of what for many of us is our first real job. It has also occurred to me that few of us would apply for this job if it were listed in the Help Wanted section of the newspaper. The ad might go something like this:

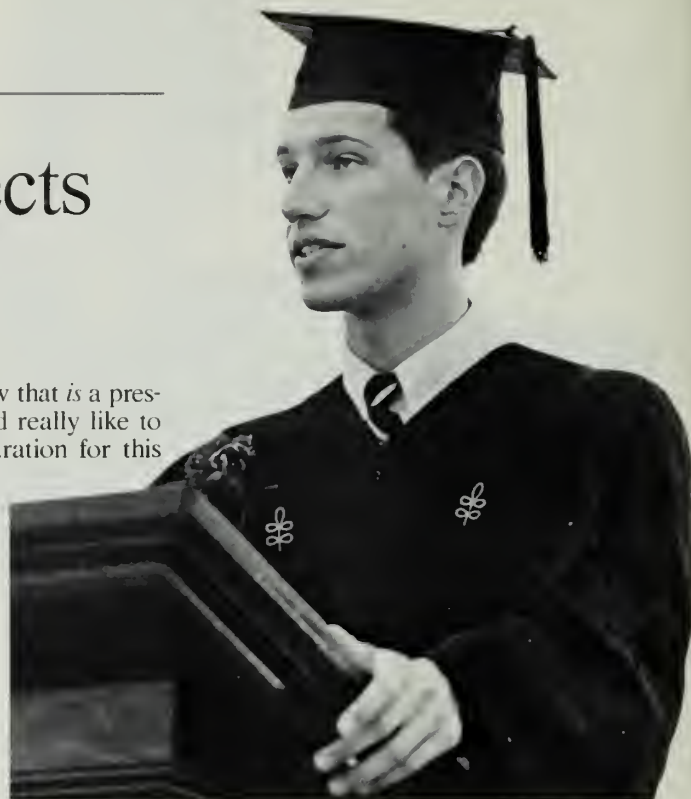
WANTED

Scut persons. Do you thrive on responsibility? Are you ambitious enough to want to owe your first million by the age of thirty? Frustrate family and friends; thrill your enemies—become an intern! Applicants should be willing to work 80-100 hours per week, remaining alert and efficient at hours when normal people are deep asleep. Applicants must be willing to tend to the sick and dying, exuding compassion and comforting them in the ten minutes allotted per patient. Applicants must be willing to inflict pain with little certainty of therapeutic benefit. Applicants should have at least eight years of prior training or education, preferably costing upwards of \$100,000, and should be familiar with volumes of lecture notes and thousands of pages of texts. Successful applicants will be exposed to debilitating or fatal diseases, and will acquire the ability to sleep while standing or even while walking. Starting salary is approximately \$4 per hour. We are an equal opportunity abuser. Do you have what it takes? Can you take what it has?

Congratulations! Now that is a prestigious job. But what I'd really like to talk about is our preparation for this job. After undergoing this preparation I realize they can't teach us all the answers, and those that they do teach us we will certainly forget. We can only hope that they taught us where to look them up.

Certainly this was what Sir William Osler meant nearly 100 years ago when he said, "To cover the vast field of medicine in four years is an impossible task. We can only instill principles, put the students on the right path, give them methods, teach them how to study, and early on how to discern between essentials and non-essentials."

Around 1900, William Porter here at Harvard observed that, "the mass of knowledge in every department of medicine has grown so huge as to overwhelm both professor and student." Keep in mind that Osler and Porter were speaking of the problem of information overload when the germ theory of medicine was but 20 years old, and



when the physician counted perhaps six effective drugs that could be prescribed; aspirin hadn't even been introduced.

Imagine, then, the task of educating the physician today, when there are now not 6 but 2,500 available medications, each with long lists of indications, contraindications, side effects and interactions. I figure I'll be lucky to feel comfortable prescribing six—including aspirin.

Here at Harvard, there has been a lot of excitement—and new building—of late because of a change in the way medical students are taught. There is a new curriculum being introduced, and the administration believes that this so-called "new pathway" may be a more appropriate way to educate physicians than the traditional "old" pathway. Until today, my classmates and I thought we were the last class to go through Harvard Medical School educated entirely in the old pathway style. This inspires mixed emotions—pride at being the last pure group in a great tradition, and shame at being dinosaurs of a sort, on the way out. Well, as I recently discovered, the Class of 1988 is to play a much more important role in the re-vamping of medical education than we thought.

I have here a copy of the lead article in next week's *New England Journal of Medicine*. It is written by Deans Tosteson, Federman, et al., and entitled "The New Pathway: A Therapeutic Trial." The interesting part for us is



Teaching awardee Richard Wilson (far right).

that the Class of 1988 were the subjects used in this study, and we didn't even know it.

Now, any good experiment meant to test the effectiveness of a new treatment has certain features. First, the subjects are randomly assigned to three groups. One group receives the old treatment, one group receives the new treatment, and the third group acts as a control group, receiving only a placebo. So were we divided when we entered Harvard Medical School—one-third of the class was educated in the old pathway, one-third in the new pathway style, and one-third of the class acted as the control group, receiving a placebo medical education, or no medical education at all.

Similarly, in order to avoid any bias on the part of those conducting the experiment, it is best that the study be "double blind." This means that neither the people running the experiment nor the subjects know which group they are in—whether they are giving or receiving new treatment, old treatment, or the placebo. So it was here at Harvard. The faculty was not aware whether they were teaching us in the old style, in the new style, or whether they were teaching us nothing of relevance to medicine at all.

The key to such a study is in evaluating the effectiveness of the treatments, in obtaining objective or "hard" data, as opposed to subjective or "soft" data. How much medical information did the students retain after the old pathway? After the new pathway? And how do

they compare to the control group which had four years of placebo?

Hard data in this study will be provided by brain weights. The heavier the brain, the more knowledge has been retained. Several students from each group have been selected at random to have their brains weighed. Now, even I know that having one's brain removed

for weighing purposes is, as doctors so euphemistically put it, "incompatible with life." But they tell me that special partial tuition refunds have been arranged for your families, and an extra six-month deferment will be tacked onto your loans to help out your co-signers.

I see some families trying to volunteer students for tuition refunds, but, as I say, the random selection has already taken place. I know my classmates are nervously wondering who among them has been selected to give their "all" for this study. If you just take a look at your diplomas; as long as there is no Latin there, you're okay. Otherwise . . . at least you don't have to be an intern.

I know my classmates are honored to have played such an important and helpful role in perfecting medical education as participating, even unwittingly, in this study. And next year, you can do what I plan to do when I haven't a clue as to what is going on—shrug and say, "I was in the placebo group."

On a more personal note, it's been a privilege to have been a part of this class and it will continue to be a privilege to be a colleague of all of yours. I'll never forget you, but if I do, hopefully I'll know where to look you up. □



William Richardson '88 with father, George Richardson '46, and Rosalind Frim '56 and her two children, David Frim (MD, PhD) '88 and Sara Frim-Forman '88.



ALUMNI D • A • Y

If a contest for "most humorous" had been held after speeches on Alumni Day, the Class of 1963 would have won hands down. Brightened by sunshine and good humor, the day was a glorious one.

Paul (Pepper) Davis '63 introduced

his 25th-reunion class by saying it was known for humor; they then set out to prove it. Harvey Klein '63 lamented the end of the Golden Age of the Aristocratic Physician, when Harvard physicians "enjoyed the illusion of central position." To adjust to a world where

they are "only health care providers" like everybody else, he proposed the Yellow-Brick Pathway to re-education. Classes will teach marketing, dressing for success (and looking the part), how to rat on colleagues, and practical subjects such as how to find the Early Bird Specials at Wendy's.

Davis, who purported to be the author of *Economic Power Through Endocrinology*, presented a tongue-in-cheek, footnoted paper announcing the finalists for the 1988 Nobel Prize in Economics for Medicine. One finalist, he said, advocates an oyster-bed economic approach: hospitals can bill for services only in months with the letter "r" in them. Also nominated were two feminist economists whose theoretical model includes role-reversal medicine. Residents in this model are called non-resident physicians, work 9 to 5, and leave 36-hour shifts of hospital coverage to "totally unsupervised middle-aged attending physicians."

Medicare's new relative value scale (RVS) for reimbursement was the butt of humor for Richard F. Brubaker '63. He said that he learned early in his medical school days that value was relative, that at Harvard "great accomplishments seemed to be ignored, modest achievements were accepted politely, but trivial pursuits were accorded enthusiastic reception." On the HMS RVS, collecting signatures of famous opera singers is worth two dozen publications in the *New England Journal of Medicine* and being appointed dean of a medical school is equivalent to riding a unicycle. Out to demonstrate his own worth, Brubaker donned his "Hacky Sack Centurion" cap and began to kick a hacky sack from one foot to the other.

Deborah Prothrow-Stith '79 struck a more serious note, after first speculating what the relative value might be of her position as commissioner of public health in Massachusetts. She noted that politics and science should be merged for effective public policy on such problems as youth violence, narcotic addiction and AIDS.

Harold J. Burstein '90 read his essay that won the Alumni Council's annual contest (Richard E. Gliklich '88 came in second). Dean Daniel C. Tosteson '48 updated everyone on the past year's activities at HMS, and appealed to alumni to take a leadership role in changing the "depressing" tone of discourse about medicine which young people hear these days.

Then it was on to business. Outgoing president James A. Pittman Jr. '52 announced the slate of new officers, including the election of Robert M.



Goldwyn '56 as president-elect 2. (Claire M. Stiles '56 now moves up to president-elect 1.) Joseph E. Murray '43B, chairman of the reunion fund, announced the highest participation ever this year: greater than 48 percent of all alumni donated to the fund, over 70 percent in some classes.

Pittman then turned the presiden-

tial gavel over to Doris R. Bennett '49. On behalf of the Alumni Council, she thanked him for all he had done during his tenure as president, expanding council activities and providing provocative ideas. "And to add a comment I hope he doesn't think is sexist," she said, "he's also a very good looking." □

A L U M N I D A Y

Don't Resuscitate Me, I'm Only a Doctor

by Harvey Klein

I have been asked by the most ruthlessly persuasive person in the world (outside of the Mafia, of course), my classmate Pepper Davis, to talk about my humorous recollections of our days at HMS.

The fact is, I lost my sense of humor (through extravagant overuse), while helping to write the great Aesculapian Show of 1961. And the inevitable decline of memory in middle age, which affects even Harvard doctors, has blurred my recollection to the point that I recognize few of my classmates, and even you, Dean Packer Berry, look a bit odd.

So enough of humorous recollections and dwelling in the past, and on to that great burr under all of our saddles: the irrelevant and pernicious edu-

cation we received at HMS over 25 years ago. Fair Harvard, you made us aristocratic physicians. You created us princes (and princesses), dukes, earls, marquis—at the very least, barons. And the world accepted your ennoblements.

The world we entered was seemingly settled, orderly, precise, structured, warm, clean and comfortable. We felt needed, important and independent. We enjoyed the illusion of the central position. The subclause of the social compact that applied to Harvard doctors held that in exchange for hard work, clear thinking, pure thoughts, and a healthy dose of *noblesse oblige*, our natural superiority would shine through

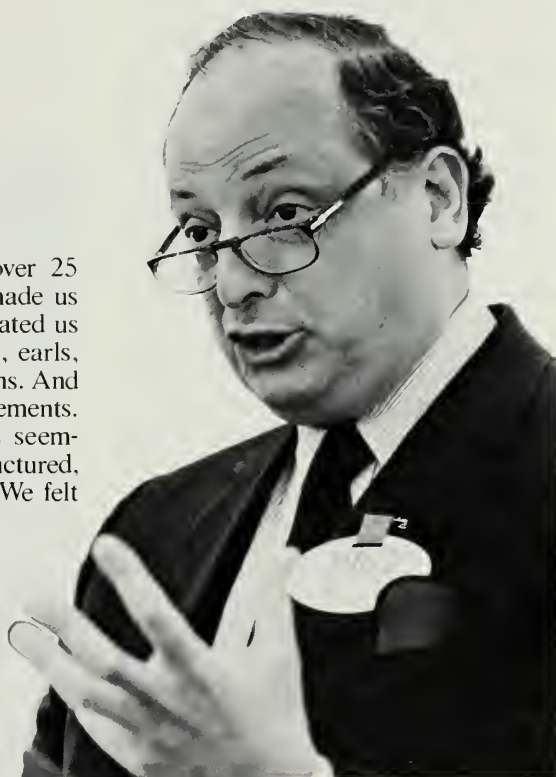
and we would be admired shamelessly by the populace. Furthermore, the grateful multitude would reward us with endless numbers of tastefully small pots of gold. It was a delightfully feudal time, now known in retrospect as the Golden Age of the Aristocratic Physician.

But as everyone in this audience knows, times have changed. Not quite a revolution but a chronic, low-grade, colicky type of collapse is upon us. Our titles are gone. Just as the terms "citizen" and "comrade" came into general use after the late convulsions in France and Russia, so we are now all, in the best egalitarian tradition, "health care providers" greeting our former patients as "dear beneficiaries."

We are caught between many hostile forces: legislators, regulators, investigative reporters, enforcers, health insurers, managed care executives, the malpractice bar—all competing to do us in. And consumers intolerant of ill health, bodily imperfections, aging, and the inevitability of death hoot angrily from the sidelines. Small wonder that one feels like St. Sebastian but with the archers cast and choreographed by Mel Brooks.

As a consequence of this turmoil, we suffer the worst indignity of all: we have lost our precedence over the lesser folks—the graduates of the other schools—since to our tormentors, we are just "health care providers" like all the rest.

What are we to do, the elite of the





Ancien Régime foundering in this new and unanticipated world? Once again, we look to our beloved Harvard to provide the succor of education and knowledge.

I propose (with the boldness and wisdom that General George Marshall displayed on a not-dissimilar speaking engagement at Harvard in 1947) the creation of a new post-graduate school for the re-education of the middle-aged, bewildered, fallen medical nobility of yore. I call this The Klein Plan.

In the manner of development folk ever since Ramesses II, the school will be named after its principal donor, but we can call it, in our usual modest way, the new Yellow-Brick Pathway to the current enlightenment. The faculty will be tough, trendy and chic—no creampuffs, they! The funding should be a natural for the new Federal Toxic Waste Superfund.

May I now be presumptuous enough to suggest a curriculum for this new school? Since aristocrats are naïve about business, finance, negotiations, productivity, competitiveness and the other common concerns of the *bourgeoise*, our curriculum must address these matters.

In the new world, the issue of first importance is actually attracting the health care consumers. Marketing is key. But just what is marketing? There are schools of marketing, libraries of books about marketing, majors in marketing, careers in marketing, consultants in marketing, and even a marketing hall of fame. The aim seems to be to

make people want to buy what you have to sell. Like wild Japanese jeeps that tip over if you blow the horn. And since fewer and fewer people really care about the old-fashioned virtues of our youth, such as integrity, thoroughness, compulsiveness, collegiality, friendliness, kindness and tact, we must be taught to adapt. Marketing gurus can teach us to master the media and the fine art of public relations. They can advise us about socko logos, cute acronyms, savvy advertising, and runs for muscular dystrophy, walks for lupus, and crawls for Alzheimer's.

We will be taught to alter our image, cut our hair, trim our beards, and change our dress in a manner most likely to impress the average American consumer. I foresee a well-attended seminar entitled, "Dress for Success, Color Me Beautiful, and Looking the Part." The seminar will surely be followed by a communal bonfire where seersucker suits, frayed cotton oxford shirts, and madras bow ties are put to the torch in a frenzy of self-improvement.

Then on to business training, where our re-education will enlighten all those who still think that the Harvard R.V. Scale is a clever device for weighing motor homes. As at The Business School, we can profit from case studies of successful enterprises. For openers, I suggest we study the three psychiatrists in California who floated a public stock issue in 1987 with a string of shopping center-based, drive-in mental health clinics, which have achieved spectacular levels of efficiency with play therapy for children during the morning, crisis intervention in the afternoon, and sex therapy for adults at night. (It isn't clear to me from reading the prospectus whether all the therapy takes place in the cars, but enough nit-picking.)

Another case study worthy of attention will be uplifting to those of us who continue to do research. I refer to the ongoing, federally-financed multi-million dollar study in Baltimore, where long-handled fish nets, manned by a dozen technicians positioned precariously on the edge of settling pools at the municipal sewage treatment plant, fish out used condoms, which have risen to the surface. They are hoping to determine



just what percentage of the condoms sold in that benighted city are actually being used. Another victory in the fight against AIDS.

No fallen aristocrat can hope to survive in 1988 without training in the great American legal system. Though everyone recognizes the never-to-be-satisfactorily-reformed tort system and the ever-present spectre of malpractice, few understand that there are cash and kudos to be gained by ratting on your colleagues. We shall have a seminar about this.

Finally, since everyone agrees that all doctors, without regard to gender, race, creed, color, physical handicap or competence, will make much less money than they have been used to, our curriculum will spend a good deal of class time teaching us how to live and age gracefully in genteel poverty. Practical subjects will include: how to launder cotton ties, how to turn shirt cuffs and collars, how to coax a half-million miles from a 15-year-old Volvo wagon, and how to find the Early Bird Specials at Wendy's. We can find solace in the maxims of great philosophers like Adolphus A. Busch, who said back in 1924, "You can only drink 30 or 40 glasses of beer a day, no matter how rich you are."

Harvard, you owe us this re-education. You promised us wine, roses, respect and love. The current reality is beer, dandelions, suspicion and hostility.



ity. Please help us to adjust to our reduced and disordered circumstances. In closing, I wish only to add that the people who look to government for prosperity and health care ought to remember what happened to the American Indian. □

Harvey Klein '63 is professor of clinical medicine at Cornell University Medical College and attending physician at New York Hospital.

succeeded in placing the likeness of the loon on the new Canadian silver dollar. The coin is now called the "loony." On the obverse of the coin is Her Majesty the Queen, right hand raised monarchically to ward off a typically low-flying covey of irreverent loons.⁴ In Ottawa, this new silver coin has inspired the term, "the low-flying Canadian economy," an economy nonetheless that makes the U.S. dollar look stable.

The second candidate for the 1988 economics prize developed what historians now call the "economic Heimlich maneuver." Too complicated to describe in detail here, the maneuver involves a very large airsickness bag and is used to relieve underdeveloped nations whose economies are gagging on loan interest payments to Citibank.

The only other nominee for the 1988 Nobel Prize was a zodiac economist used by White House staff to estimate our balance of trade with Caribbean Basin nations. He was better known for his weekly, but short-lived, PBS pro-

¹*Whether economics is a science has long concerned rational persons and others. The term "economic science" is considered in Bartlett's Familiar Oxymorons.*

²Science 238: 755, 1987

³*Professor Solow's candor in this regard has done much for faculty recruitment at MIT. Actually, the principal difference between Keynesians and modern monetarists is that Keynesians overspend money they do not have and monetarists overspend money they do have.*

⁴*When passing through Canadian airports, you may be accosted by pajama-clad persons raising money for the irreverent loon.*

A L U M N I D A Y

Announcement of the 1988 Nobel Prize for Economics in Medicine

by Paul J. Davis

Those of you who have read my recent book, *Economic Power through Endocrinology*, know that by 1987 the Swedish Academy of Sciences was seriously considering elimination altogether of the Nobel Prize in Economic Science.¹ The dearth of candidates for the prize had culminated in 1987 in an award to a Keynesian at MIT—the prize is awarded to Keynesians in odd years and moneta-

rists in even years—who surprised the Swedish academy by confessing that the only difference between himself and monetarist Milton Friedman was that Friedman thought only of money, whereas he thought only of sex.^{2,3}

The situation deteriorated further so that by early 1988 the academy found it had only three authentic candidates for this year's prize. One nominee was a Canadian cabinet minister who had

gram entitled "Face the Basin Nations."

Against this background, it was not surprising that the Swedish academy voted this year to re-direct the prize in economic science to an area of extraordinarily intense scholarly activity, namely, economics in medicine. The hearts of many assembled here today skipped a beat when the announcement of this change was made, and of the fifty or more candidates nominated in the past two months, several, I must tell you, are in this very audience.

Time and discretion do not permit me to develop in detail the qualifications of all of the nominees. However, the Swedish academy has agreed, because of the solemnity of today's occasion, to permit disclosure of the achievements of the four finalists for the 1988 Nobel Prize in Economics for Medicine. From these four will emerge an André the Giant, if you will, of medical economics.

First, Ernest F.Y. Hubbard has been nominated for his development of the theory and practice of less-than-zero-based budgeting for hospitals. Professor Hubbard is a monetarist hopelessly wedded to cost control in tertiary care teaching hospitals and irreverently linked to the economic theory underlying television evangelism. It is fair to say that Professor Hubbard's textbook *Health Care Financing When the Cupboard is Bare* is required reading for state legislators and third-party payers.

For years Hubbard has advocated that hospitals be permitted to bill for



services only in months with the letter "r" in them. This is called oyster-bed economics or the "Billing R in Season" approach to control of health care delivery costs. The American Hospital Association has described Hubbard's work as "equal in scope to the new Canadian silver dollar," while third-party payers have praised the concept of less-than-zero-based budgeting for teaching hospitals as "the hemlock needed in academia."⁵

Second, Marsha Stewart Hunt and Elliott Rauschenberg have been nominated for their development of alterna-

tive reimbursement bases for health care delivery costs.⁶ Professors Hunt and Rauschenberg are unreconstructed Keynesians who advocate absolutely no controls on health care costs, as long as hospitals and health professionals are reimbursed in something other than U.S. dollars.

One Hunt-Rauschenberg model calls for the use of scrip or coupons within the health care system, another model calls for shells or pretty stones, and a third for the use of Canadian silver dollars. Federal, state and local government agencies are empowered to issue health care scrip to all constituents, enabling politicians at every level to take credit for generating universal health care insurance. Constituents simply pay all medical bills with scrip. A blemish in the concept in trials to date has been the difficulty that hospital administrators and physicians have had trying to convert scrip into anything useful.

Third, Stephen Byron and Gordon George were nominated for the development of molecular or recombinant economics. This is an interesting concept which George and Byron developed independently and paranoically. Even today much of their work is published in the form of cryptograms in syndicated horoscope columns. From what we can piece together of their findings, these investigators have shown that it is possible to hybridize stable and unstable currencies of differing national origins, producing new currencies resistant to inflation, and often to penicillin.

The Hungarian *dinar* has been a favorite basis for Professor George's studies. Many of you are familiar with the stability of the *dinar*, for example, the *prix fixe dinar* in restaurants around the globe. In initial studies, Byron hybridized the *dinar* with the relatively unstable Spanish *peseta*. At the time of the studies, the *peseta* had been serially devalued and was described colloquially as the parboiled or mashed *peseta*. Hybridizing the *dinar* and *peseta* at first resulted in a good deal of complex carbohydrate, but eventually led to the new Canadian silver dollar, a currency which, of course, has stabilized the U.S. economy for the past decade.

Finally, Simone Bergeron and Remy



⁵Incidentally, it was Hubbard who invented the transdermal garlic patch for people who love Italian food but are afraid of bad breath.

⁶Professor Hunt is the only person named "Marsha" ever nominated for a Nobel Prize.

Deneuve are feminist economists whose endocrine approach to economics has led to the formation of the menomone-tarist school. Professors Bergeron and Deneuve were the first to recognize the 28-day cycle of share prices on the French stock exchange⁷ and the important downturns at 45-year intervals in the New York stock market, called in the U.S. the econopause, but in France, the *monnaie*pause.

These scientists have made important contributions to feminist medical economic theory, including the model of role-reversal medicine, in which attending physicians and physicians-in-training exchange their in-hospital responsibilities. Resident physicians in this model are called nonresident physicians and report for work at 10 AM, depart at 5, and leave 36-hour shifts of hospital

⁷"La période de la Bourse"

coverage to totally unsupervised middle-aged attending physicians.

I think you will agree that all of these concepts and candidates are exciting. I cannot help but feel that the spirit of reclusive Alfred Nobel is with us today, encouraging this change in the Nobel awards and saying, as was his wont, "Five-four-three-two-one, ignition!" □

Paul J. Davis '63 is professor and vice-chairman of the department of medicine and head of the endocrinology division, department of medicine, SUNY at Buffalo School of Medicine. He is also chief, medical service, VA Medical Center, Buffalo, New York. The author notes that he and several conservative colleagues founded the Right-to-Footnote movement in Boston, which maintains a file of scientific papers consisting "quite entirely" of footnotes.

A L U M N I D A Y

Relative Value the Harvard Way

by Richard F. Brubaker

It is certainly a privilege to return to Boston to be among friends, old and new, and to share some thoughts about Harvard and its students. Harvard taught us medicine and launched us on careers of continuing education. In the process, we found a camaraderie with our classmates from whom we learned much more than medicine. Each of our classmates had a system of values. It is about these values that I want to talk for a few minutes.

You are doubtlessly familiar with the term "relative value scale." By definition a relative value scale is a quantitative statement of the value of one entity as compared to all others of a defined set. For example, one could express the value of one particular brand and flavor of yogurt as compared to others to establish a relative value scale, of use perhaps to the calorie conscious connoisseur. The same process could be applied to coins and stamps and serve as the basis for bartering among numismatists and philatelists.

The idea of a relative value scale

for medical and surgical services is not new. The California Relative Value Study was first published in 1956, 3 years before my classmates and I entered Harvard 29 years ago. This scale has undergone periodic revision, mostly based on the prices of the services as they exist in the marketplace. Heretofore, these scales have hardly perturbed the practice of medicine, but recent developments suggest they may become the major economic regulator of medical practice in the future.

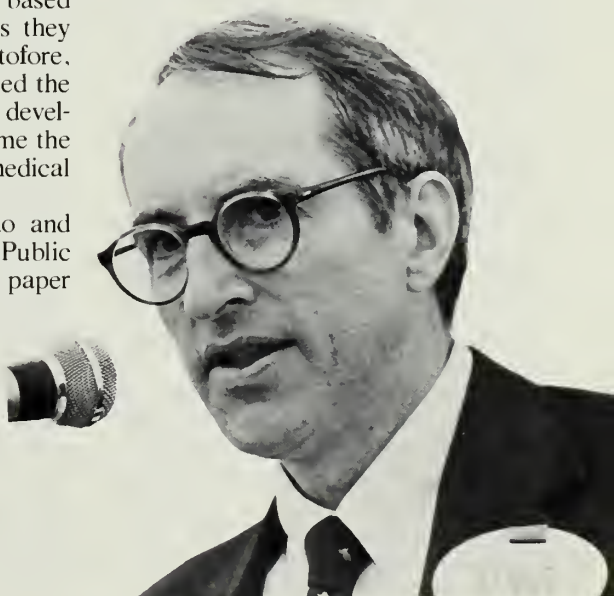
About a decade ago, Hsiao and Stason of the Harvard School of Public Health published an inauspicious paper in the *Health Care Financing Review* entitled, "Toward Developing a Relative Value Scale for Medical and Surgical Services." They argued that the regulatory forces of a competitive market cannot exist in health care and, therefore, that the relative value of medical services cannot be deduced from

physicians' charges. In this paper, they introduced methods for developing what is today referred to as a Resource-Based Relative Value Scale, or RBRVS, pronounced "arburvsss." (If repeated over and over, it makes the sound, heard often on cold mornings in my home state of Minnesota, of an automobile trying to start.)

Though off to a slow start, RBRVS is gaining momentum rapidly. The report of the President's Physician Payment Review Commission was published less than three months ago. The commission favors the adoption of a resource-based relative value scale in preference to a market-based scale and hints that a Hsiao report to be released in mid-July may become the centerpiece of its recommendations.

Relative value scales are relative in more ways than one. They relate the value of one member of a set to another, but value to whom? All relative value scales imply a perspective and are useful insofar as the creator of the scale and the user of the scale share the same perspective. Once created, a relative value scale can reveal the point of view of the person or the group who created it. It is this very idea which prompted me to examine the values of my classmates, engraved upon me by word and example over these 29 years.

Each of the alumni in the audience can probably remember his or her student days very well. Do you remember that some of your activities and accomplishments seemed to impress your classmates and other things went apparently unnoticed? It was shortly after arriving in Boston in 1959 that the singularity





of viewpoint of my peers became apparent. One remarkable event is fused in my memory, and can serve as an example for many others.

It happened over there, in Building E. We were assembled to hear Don Fawcett expound on the ubiquitous lipid bilayer as viewed with the newly invented electron microscope. Not more than a week of freshman year had elapsed. We hardly knew the person on either side of us as we sat in the amphitheatre.

Before the lecture began, an upper-classman strolled up to the podium and announced that today the freshman class would elect officers. We questioned the wisdom of the proceedings, but reluctantly began the process. Nominators were requested to summarize the accomplishments of their proposed candidate. (In the following account, the names have been changed to protect the innocent.)

"I nominate Harvey McCool. He was president of his senior class (hissssssss), captain of the rugby team (hisssss), valedictorian (hissssss). . . ."

"I nominate Kate Jollywell. She was a Rhodes Scholar at Moorefields (hissssss), a member of the Olympic Ski Team (hissssss), and a member of the winning College Bowl Team (hissssss). . . ."

One after another, my classmates were nominated, each with more glowing accolades than the last; one after another, each nominator was hissed to his seat. Eventually, one classmate got the picture. "I nominate Jason Obscurum. He can whistle out of both sides of his mouth!" With an instantane-

ous and deafening roar of approval, the class elected the student by acclamation. Those of you who doubt my story can confirm it by reading "The History of the Class of 1963" in the *Aesculapiad* in which the following statement appears: "Jason Obscurum was elected class president—political analysts felt that the fact that he could whistle 'Washington Post March' in two-part harmony from both corners of his mouth had little to do with his election."

This amusing episode was my first lesson in the Harvard Medical Student Relative Value Scale, the HMSRVS. Many lessons were to follow. These experiences led me to postulate that, compared to the relative value scales of normals, the Harvard student was suffering from *scalus inversus*. Great accomplishments seemed to be ignored, modest achievements were accepted politely, but trivial pursuits were accorded an enthusiastic reception.

Had I arrived at a sort of medical Lake Wobegon where all the women are strong, all the men are good looking, and all the students are in the 99th percentile? Was it possible to distinguish one's self in the eyes of these accomplished colleagues solely through frivolity and decadence?

Years have elapsed since those days of taking lecture notes, of reviewing them, of deciding they were worthless and discarding them. My classmates have developed their careers in diverse ways, always with distinction, and have continued the pattern of accomplishment that originally brought us together. There are professors, chairmen, chiefs,

deans, investigators, practitioners, surgeons, inventors, writers and entrepreneurs. But still the HMSRVS persists. To this day, my classmates seem more impressed with how many times you can kick a hacky sack than with the inscription on the latest plaque that adorns the cluttered wall of your office.

Why do my classmates give the impression that they discount what the world holds in high regard? Why are they so unimpressed with grandeur and so infatuated with minutiae? Well, by now I'm sure you have concluded correctly. My classmates and yours accept professional excellence as the norm. Being near the top is their basal metabolism. Excellence does not impress them; they expect it of themselves and their colleagues.

We can now explain the otherwise enigmatic relations on the Harvard Medical School Relative Value Scale. Let me give a few examples:

****Collecting signatures of famous opera singers is worth two dozen publications in the *New England Journal of Medicine*.**

****Growing rare orchids is worth 1.6 appointments to named professorships.**

****Singing bass in the Chorus Pro Musica is equal either to appointment to a presidential commission or 2.3 study section chairmanships.**

****Fabricating stained glass windows is equivalent to 3.9×10^6 appointments to IRBs.**

****Writing the words to the song "It's a Pill at Last" has the same value as obtaining a five-year NIH grant.**

****Being appointed dean of a medical school and riding a unicycle are equivalent. (Incidentally, both require delicate balance; otherwise you land on your derrière!)**

Present day graduates of medical schools here and elsewhere must share my concern about the changing role of physicians in society. The value of the services we render to patients will soon be frozen into the rigid lattice of some relative value scale whose numeric equivalents can be translated into dollars by the multiplication of a single conversion factor. The downward spiral of that one factor and the legislation of mandatory assignment remain as the last two nails to be driven into the lid of cost containment.

The prospect of legislative changes in traditional values is looming. But these values will be artificial at best. More important to each of us will be the values we have learned from the people we have known at Harvard. Excellence in medicine, and not the

unrestrained lust for lucre, remains the assumed modus operandi of our professional lives. Superimposed on this firm base are the little things, the special things, the unique things which each of you do to add spice to being a doctor.

The bureaucrats can tell us that the brain operation we have just done to save someone's life is worth no more than two sets of 'roids, but bureaucrats cannot change what happened at Harvard. Bureaucrats cannot change the

Harvard Medical Student Relative Value Scale. Your classmates—perhaps as no other friends can—value you as a person as well as a physician. They are impressed and rejoice in everything you do. □

Richard F. Brubaker '63 is Atherton and Winifred Bean Professor of Ophthalmology and chairman of the department of ophthalmology at Mayo Medical School in Rochester, Minnesota.

A L U M N I D A Y

Merging Science with Politics

by Deborah Prothrow-Stith

It's a pleasure to join you for your reunion.

I've been the commissioner of public health for seven months now, and as an aside, I note that Dr. Brubaker did not have on his value scale any ranking for commissioner of public health. That may be good for me, because if being dean of a medical school is equivalent to riding a unicy-

cle, I'm not sure that I would appreciate my ranking.

I'm reminded of a joke I was told when I started this job, in fact it was my first day on the job. One of the assistant commissioners came into my office and asked, "What's the difference between a dead skunk and a dead commissioner?"

I thought a few seconds and then answered, "I don't know." And he said, "Well, with the dead skunk there's some skid marks." Pretty interesting for your first day on the job.

As I considered taking this job, people were asking me constantly, "Do you really know how big the job is?" And I would answer, yes, I realize that the Department of Public Health has a great breadth of responsibilities, from environmental health to health promotion to really caring for people—we operate seven hospitals in the commonwealth.

But I really didn't appreciate that breadth until I'd been on the job about a month and again one of the assistant commissioners came into my office and said, "You know, the whales are dying." And I felt truly sad because I like whales and I don't think that they should be unnecessarily dying.

But that sadness gave way to practicality as I found myself working until 11:30 that night figuring out how to balance the fishing industry's interest with the public health interest with respect to the toxic mackerel that the whales were eating, and what kind of warning we would have to issue. Need-

less to say, the breadth of responsibility at the Department of Public Health is considerable, and merging science with politics to yield good public policy is truly the task at hand.

In 1890 Theobald Smith, a bacteriologist who ran our state lab and made the diphtheria anti-toxin, said that government is not the place for people with ideas of their own to air; that, if one can collect one's salary while doing a little good science, then one should be satisfied. Well as I approach this job of commissioner of public health, and see the importance of merging science with politics, I have to disagree with Dr. Smith.

Medicine is a combination of art and science. If you practice the art without practicing the science, you will be inadequate, and, conversely, if you practice the science without practicing the art, you will be inadequate. I think this is also true of public health, which is also part art and part science.

As we go through the educational process, most of us to become physicians, and some of us to go on to public health, it's interesting to keep these things in mind—social responsibility, social imperatives, and the politics of our society that demand the practice of the art. It's very difficult to merge science and politics and come up with good public policy, but that's really the challenge in public health. And I suspect it's also our challenge on an individual level when we become passionate about issues.

There are several issues that represent societal imperatives for which we are not training medical students, or



even in the process of addressing. The first is the issue of adolescent violence. Let me tell you a story that I often use when I'm talking about adolescent violence.

I was a medical student on my surgery rotation learning how to suture, and about 3:00 in the morning a young fellow came into the emergency room with a laceration over his eyebrow. He needed a couple of stitches. As a student just learning, it took me close to an hour to put in these few stitches, and during that time we joked about

my learning to suture and talked about what had happened to him. When he was ready to leave the emergency room, he said, "Look, don't go to bed. Because the person who did this to me is going to be in here in about an hour, and you're going to get all the practice you need."

Well, we chuckled, and I did go to bed. But what is really very interesting about the story is that if a *suicide* attempt had brought this young fellow into the emergency room and we had lavaged his stomach, and he had then

declared to us, "Look, don't go to bed, because I'm going home, and I'm going to take the pills that are on the top shelf, and I'll be back in this emergency room in about an hour, and you'll get all the practice you need," we would have responded very differently. In fact, we would not have waited for him to tell us this; we would have asked if he were going to do it.

After that experience in the emergency room, I did some investigating on my own and learned that homicide is the leading cause of death for young

HMS Women's Dinner

Men weren't excluded, but it was clearly an evening for the women. HMS alumnae and students packed the faculty room to capacity on Wednesday evening of reunion week for the third annual women's dinner and discussion.

There were no signs of formality as women of all ages and stages in their careers shared experiences and questions. The reception was animated with conversation, as if everyone had known each other for years. The buzz of conversation did not stop throughout dinner, and active interest was evident in the questions following a panel discussion.

In the portrait-lined faculty room, with the watchful eyes of HMS luminaries—all men—gazing down upon them, the women discussed "The Continuing Challenge" of life after HMS. Doris R. Bennett '49, presi-

dent of the Harvard Medical Alumni Association, moderated the program, which included presentations by Susan Okie '78, medical reporter for *The Washington Post*; Maria Alexander-Bridges MD/PhD '80, HMS assistant professor and research fellow at MGH; Eleanor Shore '55, HMS associate dean for faculty affairs; and Maureen Sayres Van Niel, HMS instructor in psychiatry and director of the new Harvard Medical Center office for parenting.

Okie described life scenarios of three classmates she had interviewed for a story. One is a peace activist and family practitioner in Maine, who is her family's primary breadwinner. The second is an ob/gyn who gave up an assistant professorship at Duke to be with her two children; she and her husband, also an obstetrician, share a hospital appointment, earn-

ing half what they might have. The third is a psychiatrist, married, who after two tubal pregnancies, is no longer sure whether she really wants or has time for children.

"I was impressed by the independence of their choices," said Okie. "They called the shots. It was more than just trying to match male colleagues in earnings and prestige."

Alexander-Bridges, a young diabetes researcher, mother of a two-year-old girl, and wife of Ken Bridges, an assistant professor of medicine at BWH, emphasized the importance of developing a mentor relationship in the training phase of an academic career. "No one is going to put anything in your lap." She also discussed child-rearing at different points in one's training—never an ideal time, but some are better than others.

Shore, whose daughter just finished her second year at HMS, said that the role of her office is "to persuade enough of you to go into academic medicine so that when your daughters come, there will be more women on the faculty."

When she started at HMS in 1951, Shore recalled that there were two female assistant professors in the clinical departments and only one female assistant professor in the pre-clinical departments. Now there are 14 professors, 66 associate professors and 196 assistant professors who are women. "Women do very well getting into medical school, residencies and instructor positions (the first step on the academic ladder), but they don't do well rising to higher academic ranks."



From left, Okie, Nora Nercessian (associate alumni director), Shore, Bennett, Alexander-Bridges, and Sayres Van Niel.

black men and the second leading cause of death for all adolescents, and that in the United States we have the fifth highest homicide rate in the world of those countries that collect the data. I began to think that maybe the health care system has more of a responsibility in this area. Certainly health education seems an appropriate intervention. And maybe the contact points—the emergency room, the physician's office—could begin to institute prevention.

Another area I think a lot about is the treatment of narcotic addiction. I

trained at Boston City Hospital, which sees a considerable number of addicts. Little has changed. We treat them for their cellulitis, for their endocarditis, for all their medical problems. But we don't treat their narcotic addiction. We give them a list of clinics and phone numbers, and tell them they can go to one of those clinics and be treated if they like.

In Massachusetts we have a waiting list of 1,200 and a waiting time of about three to four months for narcotic treatment clinics. And all of these treatment

facilities are outside of our health care institutions. When I think about it, 800 of those 1,200 addicts are waiting for methadone. We have emergency rooms in the commonwealth seeing addicts for all their health care problems, emergency rooms that are open 24 hours, that have security, and that have narcotic cabinets. Why are people waiting three or four months to get on methadone? And methadone is pretty cheap—10 cents per 10 milligrams.

It's also interesting to think about what we *don't* know about narcotic

She reported that this year Harvard University President Derek Bok and HMS Dean Daniel Tosteson have pressed the faculty to do more to rectify inequities and have designated an "action plan" committee to facilitate this. Women faculty who have left HMS for other institutions have been interviewed, and suggestions for improvement are being considered. A faculty committee has just approved a new teacher-clinician track, Shore announced, which should be helpful for both women and men who have made a major commitment to patient care and teaching, with a lesser emphasis on research. Ideally, clinical faculty members should do all three, but when done exceptionally well with appropriate publications concerning their clinical or teaching experience, two out of three areas can be sufficient.

The need for more affordable and accessible child care came up frequently in discussion. Sayres Van Niel described how the idea for the office for parenting arose. Building a family life and a career is conflictive, she said, but both can be done with the collaboration of the institutions for which the parents work. The office for parenting advises on resources for child care and care for the elderly for staff at all Harvard hospitals and, at Bok's request, she has established a similar office in Cambridge.

Before closing for questions, she commented: "Interestingly, men now make up two-thirds of our users." □

—Ellen Barlow



The Rise and Fall of Physician Autonomy

by Harold J. Burstein '90

addiction because it has not been viewed as a health problem. We know that the body makes its endorphins and its enkephalins. And we know that when the body makes a chemical, and then you give it that chemical exogenously, it stops making it. And we know that sometimes it stops making it permanently because of damage to the mechanism or damage to the receptors. So perhaps it's making it but not using it. What's interesting about this is that there may be some narcotic addicts who need methadone or another narcotic just as a diabetic needs insulin.

The health care community has really been shut out of the care and treatment of narcotic addiction since the Harrison Narcotic Act of 1914. Given the social imperatives surrounding AIDS, and the violence and crime that drug addiction inflicts on this society, perhaps we need to rethink the role of the health care community in this whole area of drug treatment.

I mention AIDS and I'll use that as a third example of a social imperative, one that is having an enormous impact on our health care systems. We have run into situations here in the commonwealth in which physicians are unwilling to care for AIDS patients. We estimate that there are 30,000 carriers of this virus in the state. We now have 1,500 cases on record. We know that 60-70 percent of the people who are carriers of the virus become ill with the disease in five to ten years. In five to ten years, here in the commonwealth, we project that we will be treating about ten times the number of AIDS cases that we are currently treating. And we will not be able to totally depend on the public health care system. We will have to integrate private health care and public health care and share this responsibility.

The challenge before us is that, while maintaining our excellence in the sciences of medicine and public health, we strengthen our commitment to their art and politics in order to respond to the needs of this society. □

Deborah Prothrow-Stith '79 is commissioner of public health in Massachusetts. She is an assistant professor of medicine at Boston University School of Medicine, was co-director of the Health Promotion Program for Urban Youth for Boston's Department of Health and Hospitals, and was chairperson of the Boston School Department's Adolescent Issues Task Force.

Physicians are being threatened with a loss of autonomy. Increasingly, changes in the financing, administration, regulation and allocation of health care are taking away the authority of the doctor in these areas. This phenomenon has been referred to as the "deprofessionalization of medicine." The term acknowledges the rising influence of non-medically trained individuals in medical decision making, and the declining role of physicians in self-governing the profession and its members.

Implicit in many discussions on this topic is the assumption that decisions affecting patients, even in areas not immediately related to medical treatment, are best made by doctors. As a future physician, I agree with this assumption. Only the physician is trained and sworn to assume responsibility for the best interest of the patient and to pursue this interest to the exclusion of all others. Undoubtedly, the enormous increase in specialized knowledge in fields related to medicine—public health, nursing, medical administration and economics, medico-legal affairs—means that the doctor cannot be *the* expert on every issue affecting a patient. But as the technological, financial and legal aspects of medical care grow more complicated, the need for an individual to take primary responsibility for the patient's care becomes more essential.

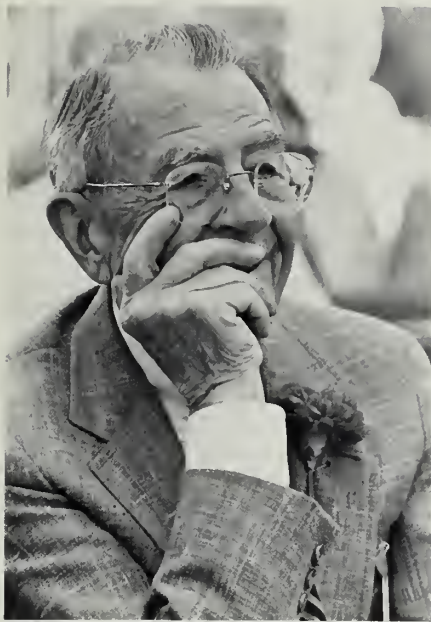
The doctor's unique relationship with the patient—revolving around expertise, confidentiality and commitment to service—means freedom from other proprietary concerns and leaves him or her most able to assume this responsibility. Thus, I consider medical professional autonomy as a benefit for both the patient and the physician. What then can reverse the declining authority and influence of the physician

in the broader aspects of health care?

What I wish to explore is another time in medical history when a struggle was underway for control of health care, and to discuss the factors contributing to the assumption of physician authority at that time and the relevance of this experience today.

Throughout the 19th century, the American hospital was shaped by many forces, notably a sense of social benevolence, welfare and reform that led to the establishment of hospitals for the indigent and the insane. The hospital became a place where ambitious doctors sought professional training that would enhance their careers. Thus, both social and professional considerations determined the structure and workings of the American hospital at the turn of the 20th century. These dual influences are extensively discussed by Charles Rosenberg in his recent book *The Care of Strangers*. By 1910, Rosenberg notes, many of the current criticisms of care





within hospitals had been well established:

From the patient's perspective, the hospital seemed impersonal and bureaucratic. Staff physicians infrequently treated the whole patient . . . certainly not as part of a specific family or specific community; specialists addressed themselves to a focus narrowed by their training. Paralleling this structured myopia was a disproportionate concern with acute ailments, especially those in which the hospital's technical capabilities might be employed, and a corresponding lack of interest in convalescence and chronic illness.

The hospital patient population was split between two diverse classes. Historically, the poor had been treated in hospitals. Having few resources, they sought treatment where it was freely offered—the hospital clinic. Those with the means to pay insisted on private medical care and would not submit themselves to treatment on public wards. Late in the 1800s, hospitals began to offer private room service for upper-class patients. Attracted by new diagnostic and therapeutic methods, as well as the pre-eminence of hospital-based physicians, wealthy patients could enter the hospital and stay in lavishly appointed rooms. These circumstances meant the exclusion of middle-class patients.

"The urban hospital was, finally, coming to seem a facility for the very rich and the indigent alone . . ." writes Rosenberg. "The great mass of middle-income Americans would not willingly

enter a hospital as ward patients but could not afford private room rates." At Massachusetts General Hospital it was observed that "the poor and the rich can get up-to-date treatment; the great body of those financially intermediate cannot."

At the same time, lay and medical authorities struggled for control of the hospital. Since the establishment of hospitals in this country, non-medical authorities had exercised considerable control over the institutions. Hospitals were founded by people seeking to apply traditional modes of stewardship to health care. Because of the influence of these non-medical trustees, hospitals often refused to treat venereal diseases, alcoholism, and pregnancy in unwed mothers. An early Boston clinic held that "persons suffering from venereal disease or from the effects of alcohol should not be treated by the dispensary, as being the victims of their own sensual indulgence." Physicians had little power to modify these regulations. James Jackson and John Collins Warren wrote in 1822 that:

. . . prudent and virtuous men might at first view of the subject be led to think such persons (syphilitics) improper inmates in a public institution of so respectable character as our Hospital (MGH). We must confess, however, that the more intimate acquaintance with this subject to which our professional duties have led us, has induced in us a different opinion. . . . It is only from a conviction

of the benefits which a hospital . . . can afford to a miserable class of sufferers, that we are induced to plead their cause.

Yet progress on this request was extremely slow. In 1839, the MGH agreed to admit patients with syphilis, but "only in urgent cases, and [they] should always be charged double the usual rates." These attitudes prevailed throughout the 19th century. In 1913, Ida Cannon, head of the MGH social service department, wrote that "the greatest handicap in the treatment of syphilis has been the stigma that is almost invariably attached to it. . . . The entire lack of proper hospital facilities for the care of syphilis . . . is a reflection of this attitude."

Because of these attitudes, doctors had circumscribed authority in admitting patients. Given "medicine's limited technical resources," explains Rosenberg, "these demographic and attitudinal realities produced a medical system . . . in which dependence and social location, not diagnosis, determined the makeup of institutional populations."

In the early part of the 20th century, American doctors faced a crisis within the hospital, the pre-eminent training ground for physicians. Dissatisfaction with hospital care was widespread. Inaccessible to a vast majority of the population, the hospital's role in health care was limited, as was the role of hospital-based physicians. Furthermore, doctors often lacked the autonomy to decide a fundamental issue of





patient care within the hospital—that of admission—because of the dominance of non-medical authority.

Between 1900 and 1920, however, a remarkable alteration took place in the American hospital, transforming it into the institution we are now much more familiar with, and propelling it to the pinnacle of American medicine for treatment, teaching and research. Hospitals began to treat large numbers of middle-class patients. Doctors assumed greater control over the workings of the hospital, including admission decisions. Physicians were extending their responsibilities beyond the wards and into the community.

The rise of scientific medicine expanded physician autonomy. As is well known, this period saw explosive growth in biological and technological advances in medicine. Bacteriology, immunology and pathology were providing an understanding of the agents and mechanisms of disease. Aseptic surgery and the introduction of X-ray technology offered new therapeutic and diagnostic options that necessitated the specialized facilities of a large hospital.

The new knowledge had several significant effects that worked together to enhance the role of physicians. First it offered a reasoned basis for hospital admissions independent of social class. Laboratory analyses of discrete symptoms were used to classify patients according to their disease, and served as impartial criteria for admission. Doctors alone had the expertise in these new spheres of diagnosis, and thus secured control of the admissions pro-

cedure from lay trustees. Further, the advances of scientific medicine offered a justification that had not previously existed for hospital use by the middle class, and thus served to attract new patients to the hospital. Rosenberg summarizes these trends:

Diagnosis and therapeutic capacity as well as an individual's social location had begun to determine hospital admission. Technology had provided new tools and, equally important, a new rationale for centering acute care in the hospital. Medical men and medical skills were playing an increas-

ingly important part in the institution—gradually supplanting older norms of lay control.

Of course biomedical expertise offered other, unique justifications for medical professional privileges—the development of internal guidelines for licensure, legislated control of prescriptions and health care delivery, and growing public esteem. These external forces, together with changes inside the hospital, fostered physician autonomy.

Simultaneous with the great advances in medical care, medical workers were adopting a new social vision. The role of socio-economic circumstance in determining health and disease was becoming appreciated, along with the realization that responsible medical care had to extend beyond the office and hospital into the community. Richard C. Cabot, a leader in the social work movement within the medical community, wrote in 1909 that “if we are really to treat that patient, and not merely smother one of his symptoms under a dose of medicine, we must push on into the background of his case, and see what disease in the body politic—perhaps in the organization of industry—is behind his individual suffering.”

The manifestations of this interest were widespread. At MGH it included the founding of a social service department in 1905. This service began to give physicians access to and understanding of some broader influences on patient health prevalent in the community. Importantly, new attitudes among health workers led physicians into closer contact with boards of health and other



social workers. Ida Cannon reported that while "the confusion in the minds of social workers that has led them to believe that syphilis is always a disgrace . . . has long hampered helpful cooperation between physicians and social workers in the attack on this disease," new efforts were now possible at MGH.

Physicians slowly began to champion reform in public health. The active role of William Osler in promoting measures to combat tuberculosis and typhoid are well known. He implored doctors to assume a broader view of their role, reflecting that "'the larger sympathy of man with man', which we physicians are called upon to exercise daily in our calling, demands that we continue our efforts—efforts often fruitless in results, but very helpful to ourselves—to educate this foolish public" about the urgency of sanitary regulations against typhoid. Such declarations attracted adherents through the 1890s, and took on even greater force in the early 1900s.

Physicians also became determined to serve a greater population of patients through expanded outpatient facilities and new access for middle-income persons. Richard Cabot's Ether Day Address in 1919 is illustrative. At this time, the MGH outpatient department treated five times the number of patients at the hospital proper, and accounted for the vast majority of patient visits to the hospital. Cabot praised the commitment of the hospital to treat those of middle income, acknowledging the resolution of the hospital leadership to "put this hospital . . . at the service not merely of the poor, as it was before the erection of Phillips House, or of the poor and the rich as it now is, but of *all* classes including the numerous persons of moderate means."

Central to these changes was the assumption of responsibility for the wider aspects of patient health care by the physician. Progressive physicians of the time sensed that "Doctors are realizing that they must know more than they do of *diagnostic psychology . . . therapeutic psychology . . . educational psychology . . . social work . . . (and) preventive medicine.*" Cabot referred to the "foreign policy" of the hospital—its role in extending "our vision and our influence beyond the hospital's walls."

Through a new awareness of the physician's larger role in patient health, and through the growth and implementation of scientific advances in medical care, physicians in the early 20th century claimed responsibility for a growing number of patients and established greater control of the resources of health

care. In short, they enhanced their professional autonomy.

If we are interested in securing our professional status, what can we learn from this era? The important underlying theme, I believe, is the emphasis on the primary responsibility of the physician to enhance the well-being of the patient. To this obligation, new ideas in science and social reform were applied. It is time once again for physicians to reaffirm this central tenet of our profession. Through it, we may hope to maintain professional autonomy.

Unlike the experiences earlier in the century, I do not think we can expect the discoveries in biomedical science

and technology to foster growing physician authority. In recent years, writes David Mechanic in the *New England Journal of Medicine*, "the growth of public disillusionment with physicians as a professional group has accompanied magnificent medical advances." Expectations for medical research are already high, and new breakthroughs seem unlikely to fundamentally alter the way the public thinks about disease and illness, as did the advances many decades ago.

Doctors must be careful to avoid becoming technocrats, technicians of science without compassion. We need to acknowledge the dependence of hu-





excessive intrusion of private and public administrative authority" into medicine. We instill that confidence by demonstrating our unfettered concern for our patients' welfare.

Physicians must make use of the unique privilege of the doctor-patient relationship to extend their responsibilities for a patient's health, and their influence over all aspects of a patient's care. If doctors infuse into this relationship both the biomedical expertise available to them, and a sense of com-

mitment to the patient that transcends the immediate constellation of symptoms and extends into the patient's life, family and community, then doctors will merit greater influence in the comprehensive care of the ill. Taking care of them will take care of us. □

Harold J. Burstein '90 won the 1988 Harvard Medical Alumni Council's annual essay award with this piece.

manitarian and scientific interests upon each other, as Richard Cabot did, in writing that "Science without humanity becomes arid, and finally, discouraged. Humanity without science becomes scrappy and shallow."

Physicians, individually and as a profession, must more directly demonstrate their primary concern for the patient. We need to communicate better with patients and with the public. We need more doctors trained in medical administration, law and public policy, able to move effectively from the bedside to the boardroom. We need to take the lead in promoting education, social assistance, care for the elderly, housing, and all the other domestic priorities that contribute to the health of the nation. We need to find incentives and rewards for doctors that are not financial, but that reflect the dedication and commitment of the profession. We need to create innovative solutions to health care financing and professional review that show we can live within properly outlined regulations. In short, we must establish a new "foreign policy" for medicine, just as reformers did in the early 20th century, to secure our professional standing.

Can this work? I believe so. Because of the place physicians still occupy in the minds of patients and in the practice and planning of medicine, doctors have an opportunity to enlarge their authority. The public will respond to whomever it thinks best understands and supports its interests. Thus, as Mechanic says, if we give it justification for confidence, "the public is the physician's strongest ally in resisting the



REUNION REPORTS

60th Reunion

Our 60th reunion was well worthwhile, even though only six members were there. A spirit of conviviality pervaded the entire affair. The friendliness and congeniality were almost unbelievable, as was the mellowness of the entire group.

Dean Tosteson, a very down-to-earth individual, warned us of what the future holds when he reported that the total number of students applying for admission to medical schools nationwide has dropped from 48,000 to 25,000.

At his insistence, we toured two buildings that had been renovated. The change was unbelievable, the beauty, an eye opener. What a tremendous amount of energy and thought was needed to produce such an unforgettable improvement. No need to mention the money.

The statues of Cannon, Peabody and Castle brought back many memories of those great teachers who guided us through our trying years. And to top it all off, a visit to the amphitheatre proved that some one of the geniuses that produced this miracle had a soft heart as well as a compassionate one. The seats were so much more comfortable than the ones we sat in for hours.

—Anthony V. Migliaccio '28

55th Reunion

Twenty-four members of the Class of 1933 gathered for their 55th reunion. Eighteen loyal wives accompanied their husbands for the festivities. A number came from a considerable distance to join in the reunion activities. On both Friday and Saturday there were oppor-





tunities to renew old friendships, to reminisce about the past, to enjoy learning again of one another's achievements, and to join in our hopes for the future in the practice of medicine.

On Friday evening, after the spread on the quadrangle, the class assembled at the uptown Harvard Club for dinner—quite appropriately in the Aesculapian Room. Our guest was Stephen Krane, chief of the arthritis unit at MGH and master of the Walter B. Cannon Society, one of the four named societies in the new curriculum at the medical school. He spoke on this interesting teaching innovation that uses smaller groups of students to insure closer association with one's classmates and with the faculty. There was discussion about the responsibility to teach "the care of the patient," whether it be in the school or in later teaching. No conclusions were reached.

On Saturday, most of those who attended Friday's festivities and several additional couples gathered at the Cannon's in Lincoln for refreshments and a luncheon. It proved to be a happy way to conclude a memorable reunion.

—Bradford Cannon '33

50th Reunion

At a symposium on medical education, we learned that HMS has established a separate path to promotion and tenure, based on time and skills in teaching. The number of applications to HMS

continue high but are dropping, as they are everywhere. We learned that stress among current medical residents is real, that they work just as hard as we did, but that the demands are more complex, putting them in a constant state of angst. The patients are sicker, older, with short stays requiring very intensive care. The patient is promptly discharged without the resident getting to know him or her as a person, and without the pleasure of caring for a grateful convalescent patient.

The Alumni Day speeches by the Class of 1963 were hilarious. Dinner at the Ritz, organized by Marjorie Sise, was followed by slides from old reunions, showing Dunphy, Sosman, Shields Warren, Lanman, John Rock, and many of our classmates. Most of us spoke for five minutes in an entertaining manner on anything we wished. Hunt Jones read from a Louisville newspaper clipping the details of his extraordinary encounter with the dean of American actresses. He also had an apt observation on astrology. Write him for details. If you want to know anything about Aesop's Fables, write Dorothy MacLaren. We had to terminate at 10:30 PM, so some could not speak; thus Lloyd Brown could not entertain us about his skill in fixing fractured femurs with intramedullary rods.

We were honored by the attendance of Isabel Cary, Edwina Seeler, Frances Allen, Carolyn Bloomfield and Edith Kopans.

We chartered the *Abigail Adams* for a superb three-hour cruise around Boston Harbor, terminating at the USS *Constitution* as it fired its cannon at sunset.

Finally, an example of the insight of the Class of 1938: early on we elected Frank Ingersoll as our class president for life, and he became a remarkable role model for character and professional excellence. At retirement he was clinical professor of gynecology at HMS and senior surgeon at MGH. He was an archivist and a scholar; a few years ago at my request he produced the "Ballad of Chambers Street," attest a true copy, FMI.

—Frank J. Lepreau '38

45th Reunion

The outstanding success of the 45th reunion of the combined classes of 1943A and 1943B was initiated by all the accessories, generously hosted by Dorothy and John Brooks at their lovely home in Weston.

The following three days were fantastic at the Wequassett Inn on Pleasant Bay in Chatham. The weather was perfect during the entire stay and the food and festivities were absolutely memorable. The entire reunion was without question one of the finest, if not the best that our combined classes have ever had.

E.P. Richardson Jr. expressed the spirit of the group so well in the preface of the '43A redbook: "For those of us who are still around—let us keep up contacts with one another, through reunions or whatever other opportunities that may come up. We are a lucky group!" Indeed we are.

—Don McLean '43A

Sixty stalwart members of the Class of 1943B arrived in Boston for their HMS reunion, coming from all over the country: California, Vermont, Kentucky, Colorado, Tennessee, Washington, etc. We were joined by our '43A classmates at a clambake at the John Brooks's in Weston. It was cold, but the tent was heated. We thought '43A looked older than we did, but we did not comment on that. There were 120 of us from '43A and '43B.

Friday, Saturday and Sunday we all gathered at the Wequassett Inn in Harwich for two-and-a-half sunny, warm days of fond recollections of our professors: Deans Burwell and Hale, and Dotty Murphy; Professors Green, Can-

non, Hastings, Krayer, Wolbach, Churchill, Cutler, Albright, Chester Jones, McKittrick, Scatzki, Thorn, Cheever, Levine, Castle, Gamble, Blumgart, Altschule and many, many others. And then there was Least Colonel Pussy Russey Fairbanks of the army who told us "to leave his WAC alone."

We swam, we sailed, took a boat to the outer beaches, poked around here and there and generally had an excellent time. We enjoyed seeing a few widows and classmates who were able to make it to the meeting. We look forward to the 50th with trepidation and expectations.

John Nemiah, poet laureate for '43B, wrote the following poem to culminate the reunion.

—John R. Brooks '43B



Ode: Ruminations on Recollecting the Early Aspirations of 1943B

by John Nemiah '43B (With apologies to William Wordsworth)

I

There was a time when Medicine seemed to be

A noble calling and a harmony

Twixt patients and their LMD.

It is not now as it hath been of yore.

Turn wheresoe'er we may,

By night or day,

The things which we have seen we now can see no more.

II

Our patients come and go

In HMO and PPO.

Where profits, costs, and DRG

Dictate their course of therapy.

And trailing crowds of lawyers, malcontent

They echo forth a vigorous lament

Of woes they learned from giving their informed consent.

Coached by counsel in their argument

They vent their grief

In legal brief.

And we are left to reap the bitter fruit

Of Aesculapius in the long law suit.

III

Whither is fled the visionary gleam?

Where is it now, the glory and the dream?

In the glaring lights

Of civil rights

Our hopes to be a ministry

For soothing human misery

Are seen as naught but fantasy.

While the probing view

Of peer review

Reveals the limits of our skills

The impotence of puny pills

To solve the riddle of man's ills.

IV

Enough! Enough of mournful verse!

The situation could be worse—

Although the art is long and life is short,

Every doc now has his day in court.



40th Reunion

Eighty-five class members and wives returned to HMS and Boston for the exciting programs on Alumni Day. Dean and Mrs. Tosteson entertained in their home. All enjoyed dinner and wine at Boston's colorful and historic Tavern Club, where several speakers gave short, witty accounts and toasts.

After Alumni Day lunch and group photo sessions on the quadrangle, forty class members and wives repaired to the Ocean Edge Resort in Brewster on Cape Cod, where outdoor sports and

outings ranged from bird watching to golf, tennis and swimming. All especially enjoyed renewing contact with classmates and comparing notes on children and grandchildren. Some classmates were making their first reunion now that they had retired or reduced the intensity of their medical activities. Some have undertaken service to underprivileged, supplying medical care, housing or spiritual aid in many parts of the United States and the world.

After a superb Saturday evening New England clambake and an elegant Sunday brunch, the class separated with promises to make the forty-fifth. All are thankful for the efforts of Ed Gray, treasurer, Newton Peabody for the



class book and his stories, and the alumni office for making our reunion so memorable.

—James Bougas '48

35th Reunion

The Class of 1953 had a relatively small turnout—approximately 35 attendees—for its 35th reunion, but what it lacked in numbers, it more than made up in enthusiasm and warmth. The reunion dinner on Thursday, June 9, held at the Royal Sonesta Hotel in Cambridge overlooking the Charles River,

provided an elegant setting to renew friendships and exchange reminiscences.

After a relaxed, sunny Alumni Day on the HMS quadrangle, the reunion continued its celebration at the charmingly renovated Chatham Bar Inn on Cape Cod. It was probably one of the most weather-perfect weekends in a long time as everyone enjoyed the vistas over the sparkling waters, sampled the excellent food, including an unlimited lobster clambake, and filled the weekend with beach strolling, tennis, swimming in the pool (remember how cold New England waters can be before July?!) or browsing in the more remote, unique Cape villages.

Honors for "most travelled" went to the Hoskins from Seattle, followed

closely by the Whitcombs from Pensacola and the Kayes from Jacksonville, Florida.

A telegram sent to the Class of '53 at the Chatham Bar Inn from Charlie Bauer read: "Wish I could join you, but multiple sclerosis prevents me. Am still okay from waist up. Have fun and have a drink for me." We missed him and wish him the best.

We hope that our other absent classmates are well and urge them to put aside the 1993 Alumni weekend for a visit to Boston. In the meantime, we decided that five years was too long a time to elapse between get-togethers and that we would make the effort to have informal mini-reunions around visits by out-of-town classmates with our Boston area '53ers. Keep in touch!

—Iolanda E. Low '53

30th Reunion

Celebrating their 30th reunion at the Union Club on Thursday evening, the Class of 1958 certainly did muster a group of dapper and distinguished physicians whose vigor belied their years. The enthusiasm of old friends together carried us through a fine dinner after which Pete Coggins and Steve Robinson discussed the recent activities of the Alumni Council and the new curriculum. Howie Corwin and Tony Patton gave us some wallet-enlightening words about annual giving and the Alumni Fund Drive. It may have been the wine and candlelight, but I found our classmates to be a very attractive and well-rounded crew.

It became apparent on Friday at Class Day that to attend only one activity of the reunion would entail missing a classmate such as Gunes N. Ege-Akter, who traveled with her diplomatic corps husband from Swaziland especially for the quadrangle ceremonies and luncheon. There were fewer fabulous faces to be photographed on the steps this year than in '83, but the age span was certainly wider thanks to Chris van H.H.'s newborn son. Those who ventured to Chatham were treated to a weekend of sparkling sun, broad verandahs on which to gather, quiet roads, beaches to wander and a particularly memorable lobster dinner with buttery fingers and good conversation. We explored the site of the break in the barrier island (sand bar) and saw the erosion and toppled houses which had been recently covered in national news. It

was a thoroughly satisfying reunion and those who were unable to join us were sorely missed.

—Joseph W. Burnett '58

25th Reunion

Our 25th reunion was a success. During the day on Thursday, ten of our classmates participated in the scientific symposia for the Harvard medical alumni. Topics ranged from molecular biology to medical education to surgery.

That evening, 80 classmates and spouses enjoyed dinner and conversation at the Downtown Harvard Club. Prior to the first course, we were required to complete the January 14, 1961, comprehensive examination in bacteriology-pathology. Among the questions was the following:

Carcinoma-in-situ of the cervix develops into invasive carcinoma—

- not usually never.
- never in all cases, but often in many.
- not necessarily always, but rarely in most.
- usually in rare cases especially.
- generally, but not invariably never.

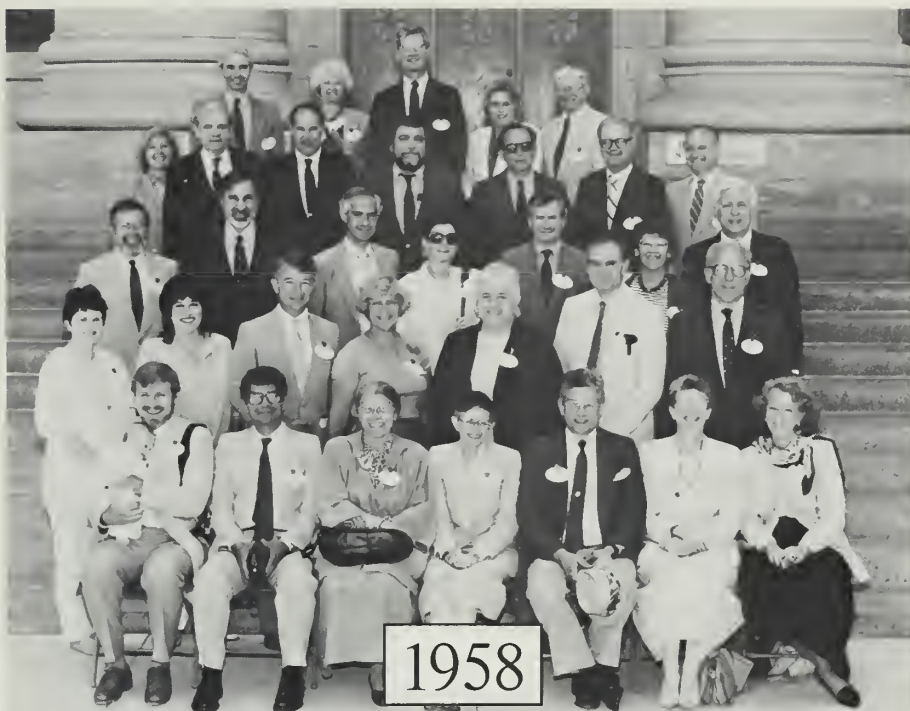
The Alumni Day program on Friday was highlighted by presentations by Harvey Klein, Pepper Davis and Richard Brubaker. (See texts in this issue.) Davis did not read from his latest letter requesting funds for the Alumni Association, and Brubaker refrained from two-part harmony, to the disappointment of all.

Maine's sunniest weather of the year greeted about 25 HMS couples who ventured "downeast" to the Stage Neck Inn on Friday afternoon. Tears of mirth still occasionally emerged as the morning's class presentations were recollected.

Sufficient medical subspecialties were represented and all concern for injury to body and mind was abandoned pending full pursuit of the weekend's opportunities.

Friday evening's memorable foods and spirits enlivened the pleasant/painful reminiscences, all anaesthetized by the 29-year time lapse since we first gathered as a unity. The post-prandial triad of Brubaker duets was wildly cheered.

Dawn on Saturday saw a surprising number of runners—well, some runners, but mostly joggers—and a reunion domination of all tennis courts and hiking trails. Side trips to York Har-



bor's sites and sights melded together with relaxation in the sun (Harley said *ad libitum* for one day). The day culminated with a festive clambake accompanied by a four decade fusion of dance styles and an amplified playback of the second-year show. Puzzlement of another group sharing the evening's locale was heightened when we spontaneously joined in the title song—no one had forgotten the lyrics! Following the clambake most re-gathered at the inn's lounge

to continue an evening that none wished to see end.

In Sunday's bright sunshine last-minute photos, goodbyes and promises to "do this again" were exchanged. My wife (Evans) was heard to wonder how many groups that gather this rarely are so comfortably close. All departed cheerily, but not without wondering how both Janet and Keith would manage to fly on only one ticket.

—Richard Monson and Robert Evans '63



end at the Cape, a smaller contingent including Steve Hochschuler, Vince Reale, Tom Robertson and Carve Ruth-erford celebrated in the sunshine. All who attended enjoyed the comrad-erie and fervently hope that for the 25th reunion our class can show more spirit. Mark your calendars now and plan to attend!

—Stephanie Pincus '68

15th Reunion

An elegant dinner at the Algonquin Club of Boston on Friday night, June 10, and a perfect summer day for the clambake at Dick Peinert's summer house in Scituate on Saturday, June 11, were the centerpiece events of our 15th reunion. Nine classmates attended just Friday's dinner, eight came for just Saturday's festivities, and twelve enjoyed both events. Joe Mescher and family from Huntington Beach, California, and Janine Krivokapich from Encino, California came the farthest distance, but we were well represented from many states in addition to the "locals." Catching up on lost time, renewing old bonds of friendship, and remembering shared pleasures from the past kept us all busy and happy. We refreshed the strong kinship of our common experiences and wondered about those classmates who could not or did not attend.

Friday evening, we shared the posh Algonquin Club with Liv Ullman's private party, but we had the better time. Although our Harvard credentials did not get us valet parking (Parking attendant: "Are you with the Harvard group?") Proud alumnus, opening car door: "Why, yes." Attendant closing door quickly: "There's a lot three blocks away!"), the room was quiet and clubby and the food superb. The cardiac surgeons and cardiologists BUTTERED their rolls and enjoyed their LONDON BROIL, while the rest of us heaved a sigh of relief. In addition to the Californians (Mescher and Krivokapich), classmates from Missouri (Thorpe), Chicago (Hier), New Jersey (Hochberg), Philadelphia (Kelley), and a gang of Bay Staters (Bergman, Tully, Peinert, Delfs, Sanchez, Mordes, Eichhorn, Harris, Corkery, Davis, Shahian, Nadler, Zitin and Zitin) were in attendance.

Saturday dawned crystal clear and warm—perfect for a day at the Peinert's beach house. Woodman's expert lobster steamers provided a feast worthy of our appetites, and the families (lots of kids) and classmates enjoyed the



20th Reunion

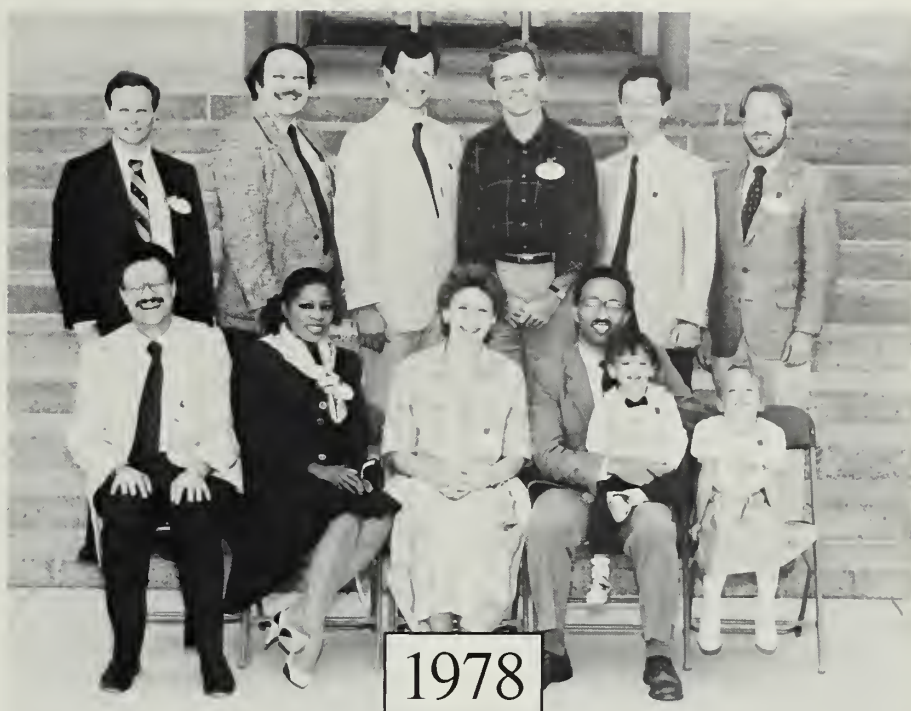
Thirty-one classmates commemorated the 20th year reunion at the Boodles Grill of Back Bay Hilton, on Thursday evening, June 9th. In addition to the

"local contingent" of Chen, Chivian, Pincus, Peppercorn, Pauker and Ellsworth (apologies to those omitted), New England's celebrants included John Welch (of Hartford), and Phil and Suzanne Boulter (of Hew Hampshire). Visitors included Donna and David Oakes (from California). Over the week-

beach, the sun and the conversation long into the afternoon. Yolken arrived from Baltimore and we added Kopans, Stone, Platt, Weinberger, Avorn, Mendis, and Campbell to the Delfs, Tully, Peinert, Kelley, Mescher, Krivokapich, Eichorn, Krueger, Nadler, Shahian and Zitin (M and B) returnees from the night before. Only two "Camp HMS" t-shirts were worn (one by a child!), but we clearly re-captured those thrilling days of yesteryear. . . .

We all extend our thanks to George Tully and Dick Peinert and everyone else who arranged these events so well. We thank everybody who took the time and effort to attend and hope that you were justly rewarded with a great weekend. We look forward to another five years of health and contentment and hope that more of our classmates will attend in 1993! Please let us know what we can do to lure more of you out of hiding!

—Barry R. Zitin '73



10th Reunion

We had a wonderful turnout for the 10th, including classmates from all areas of the country. John Donohue and family from Rochester, Minnesota; Rob and Wanda Huizenga from Los Angeles; Linda Hotchkiss and family from Detroit; Margaret Carrillo and family from Drexel Hill, Pennsylvania; Susan Okie, Walter Weiss, Frank Ward and Agnes Mellon from Washington, DC; Janet and Jonathan Carson-Rikert from Exeter, New Hampshire; Steve Tames, Bill Slater and Veronica Catanese from New York City; as well as a large Boston contingent—Andy Arnold, Rohn Friedman, Roberta Isberg and Seth Alper, Tom and Jane King, Jerry Knirk, Helen Cooksey, Susan Love, Mariette Murphy, Cathy West and Richard Malmquist, and Nancy Rigotti. The wine and cheese party was held at Helen Cooksey's in Cambridge—a brave feat considering the presence of a new baby born within the month who remained amazingly unperturbed by all the activity. I was unable to make it to the clambake at Steep Hill Beach, but I understand Bob Waldinger and family (Boston), Henry and Rachel Brem (Baltimore), and Kathy Toomey and Michael Rafferty (Atlanta) were also expected.

I apologize if I left anyone out as I couldn't make all the activities, but it was great to see all of you.

—Phyllis Carr '78

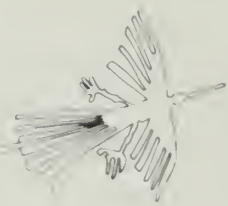


5th Reunion

The Class of '83 celebrated the fifth reunion of our HMS graduation with a cocktail reception Friday night and a Woodman's-catered clambake on Saturday. Many of the local folks made an appearance at one, if not both, the events. The local contingent included Jane Brown, Steve Chanock, Dave Bachman, Lachlan Forrow, Ed Feldman,

Joan Downey, Skip Virgin, Karen McAlmon, Shari Nethersole, Andy Salzman, Deb O'Driscoll, Jack Ringler and John Halcombe. In addition, several folks tramped in from distances near and far: Marita Criz from New York City, Linda Fay and Kevin Cullen from Washington D.C., Dana Gabuzda from Baltimore, Deb Geismar from Cleveland and Randy Hickie all the way from Texas. We really had a great time—perhaps even more classmates can join us for our tenth.

—Lisa Guay-Woodford '83



The Travel Program Of Alumni Flights Abroad



This is a private travel program especially planned for the alumni of Harvard, Yale, Princeton and certain other distinguished universities. Designed for the educated and intelligent traveler, it is specifically planned for the person who might normally prefer to travel independently, visiting distant lands and regions where it is advantageous to travel as a group. The itineraries follow a carefully planned pace which offers a more comprehensive and rewarding manner of travel, and the programs include great civilizations, beautiful scenery and important sights in diverse and interesting portions of the world:

TREASURES OF ANTIQUITY: The treasures of classical antiquity in Greece and Asia Minor and the Aegean Isles, from the actual ruins of Troy and the capital of the Hittites at Hattusas to the great city-states such as Athens and Sparta and to cities conquered by Alexander the Great (16 to 38 days). **VALLEY OF THE NILE:** An unusually careful survey of ancient Egypt that unfolds the art, the history and the achievements of one of the most remarkable civilizations the world has ever known (19 days). **MEDITERRANEAN ODYSSEY:** The sites of antiquity in the western Mediterranean, from Carthage and the Roman cities of North Africa to the surprising ancient Greek ruins on the island of Sicily, together with the island of Malta (23 days).

EXPEDITION TO NEW GUINEA: The primitive stone-age culture of Papua-New Guinea, from the spectacular Highlands to the tribes of the Sepik River and the Karawari, as well as the Baining tribes on the island of New Britain (22 days). The **SOUTH PACIFIC:** a magnificent journey through the "down under" world of New Zealand and Australia, including the Southern Alps, the New Zealand Fiords, Tasmania, the Great Barrier Reef, the Australian Outback, and a host of other sights. 28 days, plus optional visits to South Seas islands such as Fiji and Tahiti.

INDIA, CENTRAL ASIA AND THE HIMALAYAS: The romantic world of the Moghul Empire and a far-reaching group of sights, ranging from the Khyber Pass and the Taj Mahal to lavish forts and palaces and the snow-capped Himalayas of Kashmir and Nepal (26 or 31 days). **SOUTH OF BOMBAY:** The unique and different world of south India and Sri Lanka (Ceylon) that offers ancient civilizations and works of art, palaces and celebrated temples, historic cities, and magnificent beaches and lush tropical lagoons and canals (23 or 31 days).

THE ORIENT: The serene beauty of ancient and modern Japan explored in depth, together with the classic sights and civilizations of southeast Asia (30 days). **BEYOND THE JAVA SEA:** A different perspective of Asia, from headhunter villages in the jungle of Borneo and Batak tribal villages in Sumatra to the ancient civilizations of Ceylon and the thousand-year-old temples of central Java (34 days).

EAST AFRICA AND THE SEYCHELLES: A superb program of safaris in the great wilderness areas of Kenya and Tanzania and with the beautiful scenery and unusual birds and vegetation of the islands of the Seychelles (14 to 32 days).

DISCOVERIES IN THE SOUTH: An unusual program that offers cruising among the islands of the Galapagos, the jungle of the Amazon, and astonishing ancient civilizations of the Andes and the southern desert of Peru (12 to 36 days), and **SOUTH AMERICA,** which covers the continent from the ancient sites and Spanish colonial cities of the Andes to Buenos Aires, the spectacular Iguassu Falls, Rio de Janeiro, and the futuristic city of Brasilia (23 days).

In addition to these far-reaching surveys, there is a special program entitled "EUROPE REVISITED," which is designed to offer a new perspective for those who have already visited Europe in the past and who are already familiar with the major cities such as London, Paris and Rome. Included are medieval and Roman sites and the civilizations, cuisine and vineyards of **BURGUNDY AND PROVENCE;** medieval towns and cities, ancient abbeys in the Pyrenees and the astonishing prehistoric cave art of **SOUTHWEST FRANCE;** the heritage of **NORTHERN ITALY,** with Milan, Lake Como, Verona, Mantua, Vicenza, the villas of Palladio, Padua, Bologna, Ravenna and Venice; a survey of the works of Rembrandt, Rubens, Van Dyck, Vermeer, Brueghel and other old masters, together with historic towns and cities in **HOLLAND AND FLANDERS;** and a series of unusual journeys to the heritage of **WALES, SCOTLAND AND ENGLAND.**

Prices range from \$2,225 to \$5,895. Fully descriptive brochures are available, giving the itineraries in complete detail. For further information, please contact:

Alumni Flights Abroad

Department HMS 36
A.F.A. Plaza 425 Cherry Street
Bedford Hills, NY 10507
TOLL FREE 1-800-AFA-8700
N.Y. State (914) 241-0111